



WELCOME TO THE CLUB

How record-breaking
Max Verstappen
compares with F1's
all-time greats



INSIDE

**"I GOT KICKED OUT
OF MY HOTEL ROOM
BECAUSE THE TEAM
HADN'T PAID FOR IT"**

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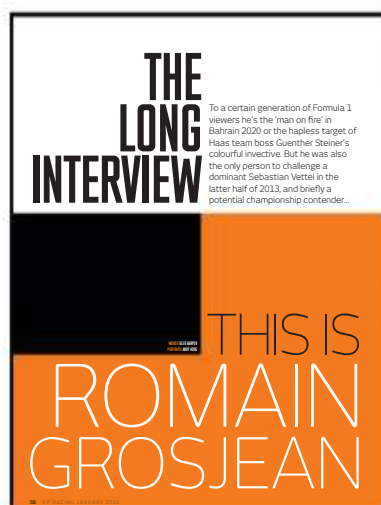


WELCOME TO THE CLUB

Max Verstappen
has joined the elite
group of grand prix
drivers to have won
three or more world
championships.
But how does he shape up against the
ones who have gone before, and why
does he resist comparisons with them?
Does he redefine greatness?
And where might
he stop?

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VERSTAPPEN
UPGRADES TO
AN EXCLUSIVE
SOCIETY



THE LONG INTERVIEW

To a certain generation of Formula 1
viewers he's the 'man on fire' in
Bahrain 2020 or the hapless target of
Haas team boss Guenther Steiner's
colourful invective. But he was also
the only person to challenge a
dominant Sebastian Vettel in the
latter half of 2013, and briefly a
potential championship contender...

THIS IS ROMAIN GROSJEAN



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THE FORMER
HAAS DRIVER
OPENS UP



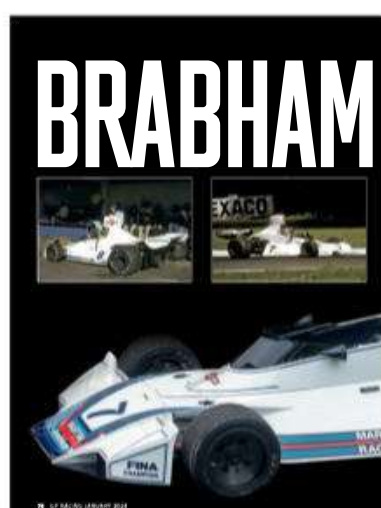
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Formula 1's return to Sin City was a bit of a bumpy ride for some –
Motorsport Images photographer Andy Howe had the view from the
ground (and a fair way up as well)



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WAS VEGAS
REALLY LIKE?



BRABHAM BT44



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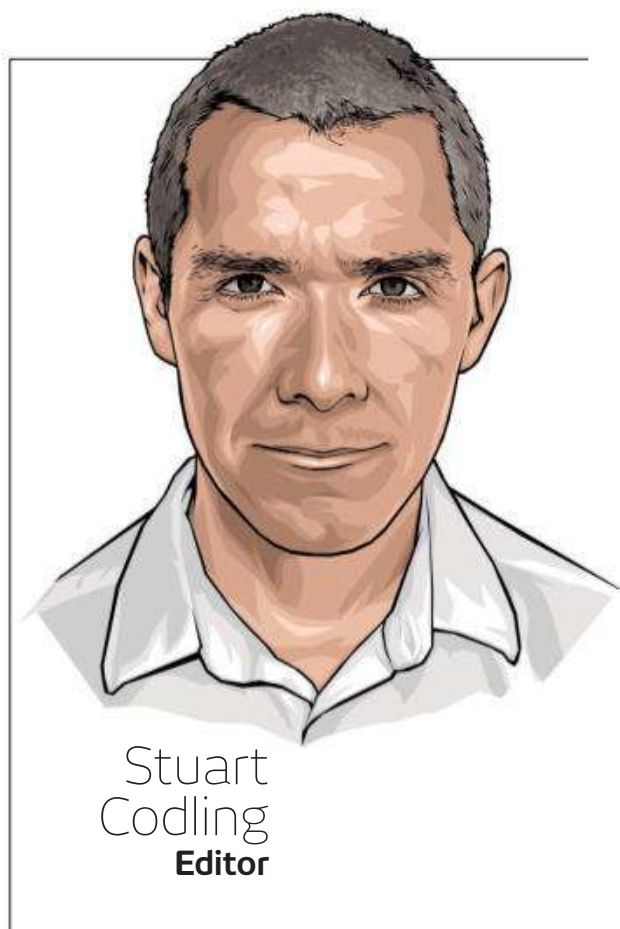
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Stuart
Codling
Editor



The best always find their way to the top

Put the best driver in the best car and, all other factors being equal, he will win races. This is a state of affairs which has prevailed since before Tazio Nuvolari was in short trousers. And yet it appears to come as an entirely new development to those who consume or report on Formula 1 on a casual basis, judging by the hand-wringing which has accompanied Max Verstappen's third world title.

Of course, the best drivers also have a knack of finding their way into the best cars. In our cover feature this month we examine how Max stands up in comparison with the other greats of F1. So far Max has been a (mostly) one-team man, living with some early disappointments as Red Bull re-engineered itself back to the front. The late, great Juan Manuel Fangio might not have been so patient; ever the gentleman on track, he was ruthless in beating his path to the most competitive cars and teams year-on-year.

As such, amid the palpable ennui of a season finale in Abu Dhabi which was a dead rubber apart from the remaining constructors' championship placings, Red Bull team principal Christian Horner's suggestion that Lewis Hamilton had approached him for a drive went off like a grenade. Horner adores making mischief for his rivals but even he seemed taken aback by the speed with which this story gained momentum on a slow-news weekend. Perhaps it's a good thing there were no mobile phones in Fangio's day...

Another contributory factor to the peculiar

atmosphere at Yas Marina was the race in Las Vegas the previous weekend. Formula 1 had so much riding on the success of Vegas that it and various other stakeholders seemingly popped into a parallel universe in which no criticism of the event was permitted. Equally there were those determined to hate it even if the weekend had proceeded flawlessly. When the inevitable teething troubles set in – loose metalwork forcing a delayed schedule and then a poorly explained clearing of the grandstands – the constituency of fans and media predisposed to criticise tucked in with glee.

Clearly the Las Vegas GP is a work in progress. As Motorsport Images snapper Andy Hone reports from the front line (p62), it's too early to make rigid judgements – this is an event which needs to mature into the calendar. What makes this process challenging is the unsociable hours enforced by the need to keep the Strip open for business-as-usual by day. Few of those working in F1 actually enjoyed the experience; it was natural, therefore, that this negativity leaked out despite the commercial rights holder's attempts to spin the contrary.

Next season Las Vegas sits at the beginning of a triple header. But, hey, you can stay at a beach resort for the next two races...

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your podcasting platform of choice

Contributors



ALEX KALINAUCKAS

Alex compares and contrasts Max Verstappen's strengths with the other 10 three-time world champions (p34)



OLEG KARPOV

Oleg 'grilled' F1's 'man on fire' Romain Grosjean about his career before that fateful race in Bahrain in 2020 (p50)



ANDY HONE

With the dust settled following F1's return to Las Vegas, Andy gives us a snapper's eye view of the race at the city that never sleeps (p62)



JAMES ROBERTS

This magazine's former Associate Editor is on the freelance beat but has been our race report guru for the second part of the season (p96)

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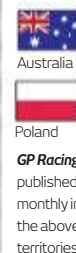
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Photographer

Jake Grant

You can spray
that again

Another season where Red Bull wrapped up a title in Japan, though this time there wasn't any confusion about whether it had actually happened or not. As is traditional, the team got together on the grid with the trophies for a celebratory picture... and then started throwing Red Bull all over the place.

It's become as much of a fixture at races as the Dutch and Austrian anthems, but it doesn't get any easier to clean off your clothes and cameras. I got this image mere seconds before the dousing.

Where Suzuka, Japan

When 6:04pm, Sunday

24 September 2023

Details Canon EOS-1D X MkII
70-200mm lens, 1/800th @ F3.5

Smoke 'em if
you've got 'em

While poor old Charles Leclerc was instructed not to do donuts by his team after the Abu Dhabi Grand Prix, Max Verstappen obliged. Well, the car is going into the museum after this.

I had a unique view, shooting from the main grandstand which gave me this nice head-on angle of the car. To get there I had to fight my way through a lot of waving arms and iPhones but it was worth it for a spectacular display of smoke.

Where Yas Marina, Abu Dhabi

When 6:40pm, Sunday

26 November 2023

Details Canon EOS-1D X MkII
100-400mm lens, 1/800th @ F5

Fizzing all the way to the end

The Abu Dhabi circuit underwent another little tweak ahead of this year's race. Not one intended to spice up the racing on track but to deliver a bit more spectacle to the TV viewers and the fans in the grandstands. The new podium is clearly inspired by Monza in that it extends out over the pitlane.

That also brought an element of the unknown because we couldn't be sure how the ceremonials would pan out. I was on the 'grid' and saw Max looking over towards where Christian Horner was – so I knew where the fizz would be aimed! He didn't get him but he did soak Robin Fenwick, owner of the Right Formula agency...

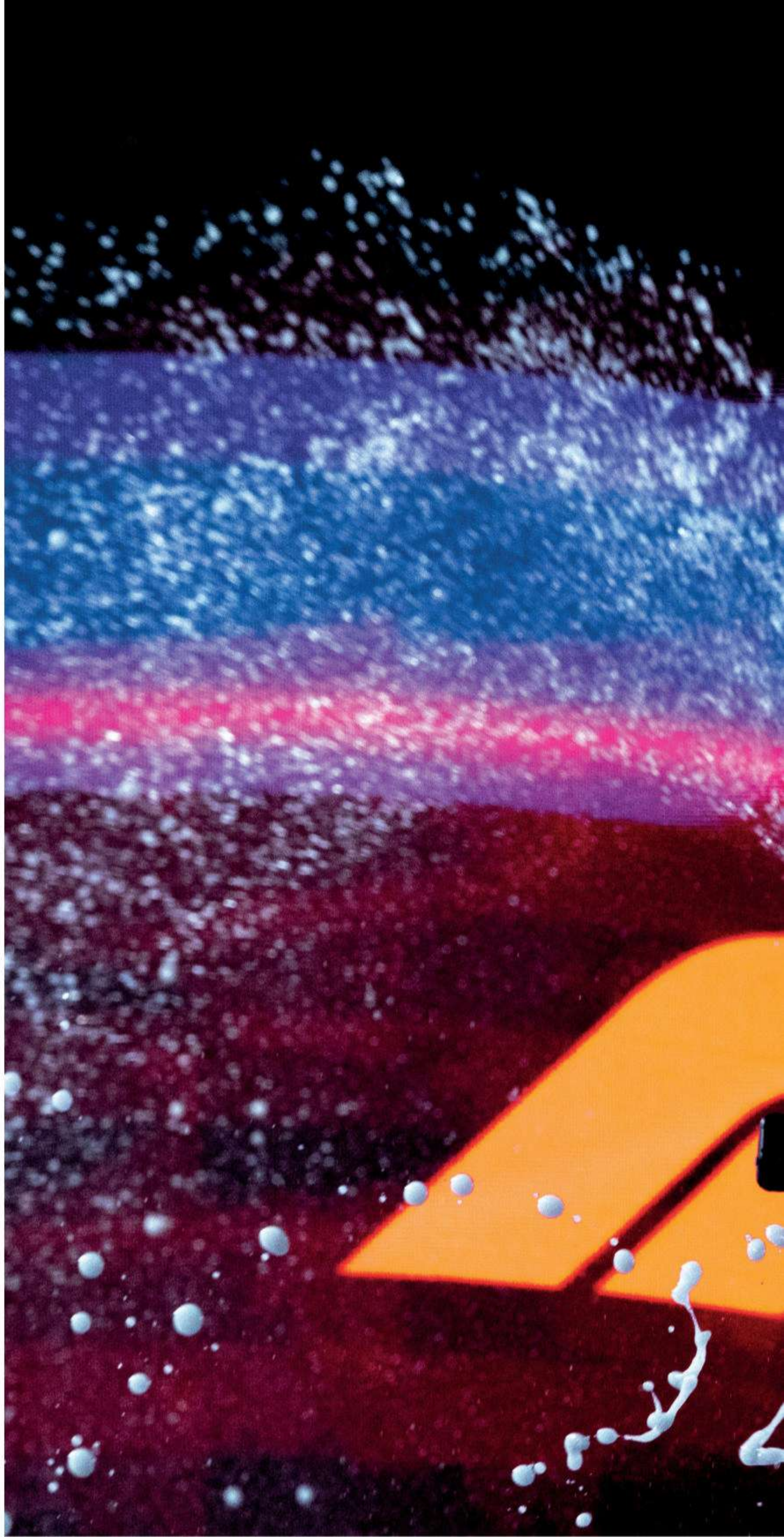


Photographer
Glenn Dunbar

Where Yas Marina, Abu Dhabi

When 6:51pm, Sunday
26 November 2023

Details Canon EOS R3
100-500mm lens, 1/850th @ F7.1





PIRELLI

PZER

infinitem
ROKT

inter

HRC
Honda R&D

RAUCH

ARCTIC
WOLF

SPUR

Red Bull

Elvis is about to leave the building

Las Vegas, another new race where you're constantly looking and learning because there are new things to take into consideration when you're photographing it. We had people dotted around in parc fermé and around the podium for maximum coverage. I thought it would be nice to do a side-on and crouch down to make use of the spotlights. Unusually in F1 I was the only person trying this.

Max pulled up perfectly on his mark by the winner's board and immediately jumped onto the nose of his car. So I was able to get a clean shot before the officials and TV crews swarmed in – this only happens about once a year so it pays to seize the moment when you get it.



Photographer
Glenn Dunbar

Where Las Vegas, USA
When 11:51pm, Saturday
18 November 2023

Details Canon EOS R3
28-70mm lens, 1/3200th @ F2





Head and shoulders
above the rest,

For me this image sums up Max Verstappen's stature – not just at Red Bull Racing but also within Formula 1 in general. Max is that much higher than his team-mate! I was reminded of that famous sketch from *The Frost Report* where John Cleese, Ronnie Barker and Ronnie Corbett are arranged in order of height and social class.

This is Max and Sergio Pérez congratulating each other after their duel in the Miami Grand Prix. We now see this as a turning point in the championship where Max stepped up a gear and Pérez started to look less convincing. It's an unusual shot in that I was in the right place at the right time to not get blocked by a cameraman or an FIA official...



Photographer
Steven Tee

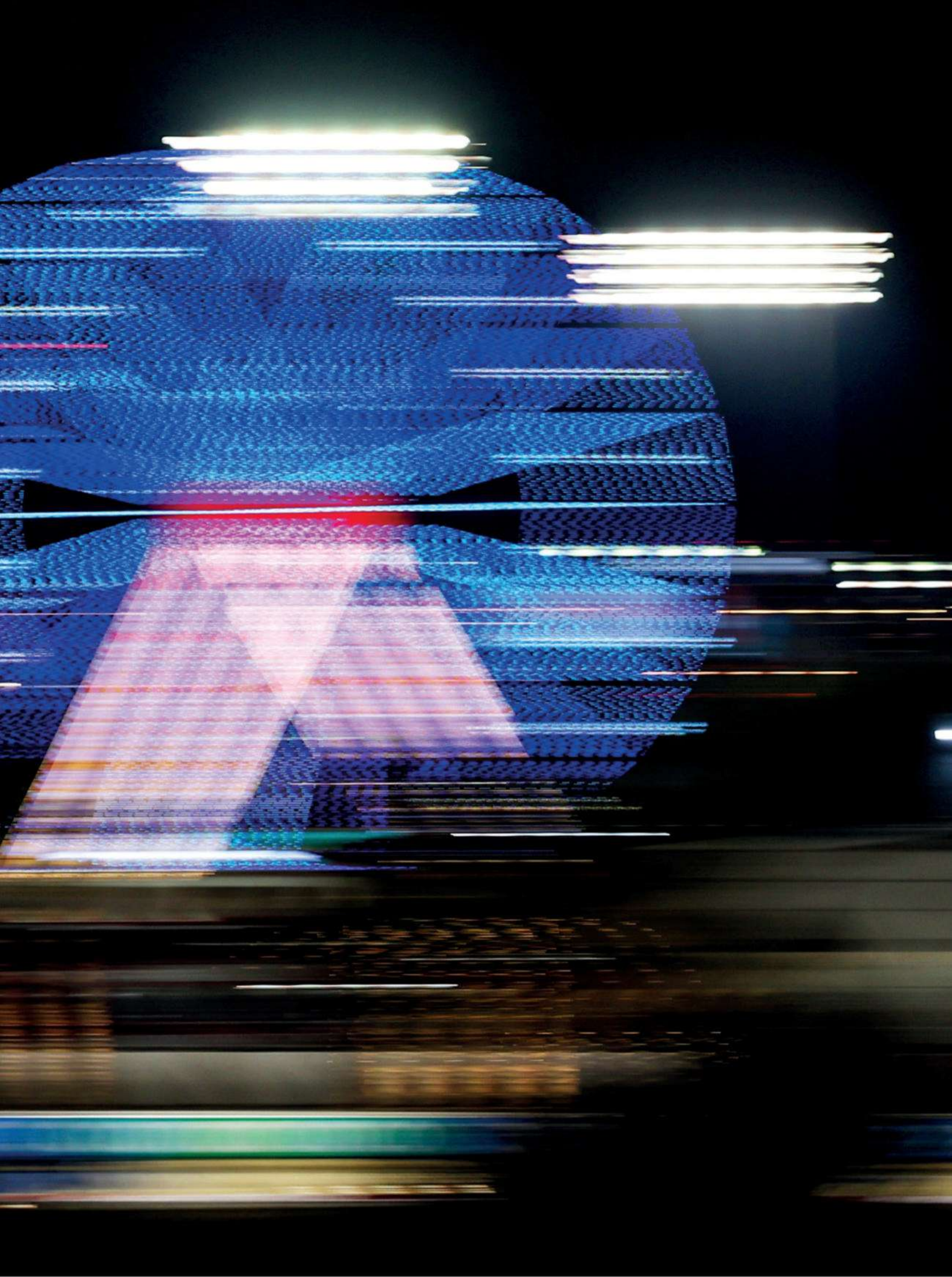
Where Miami, USA

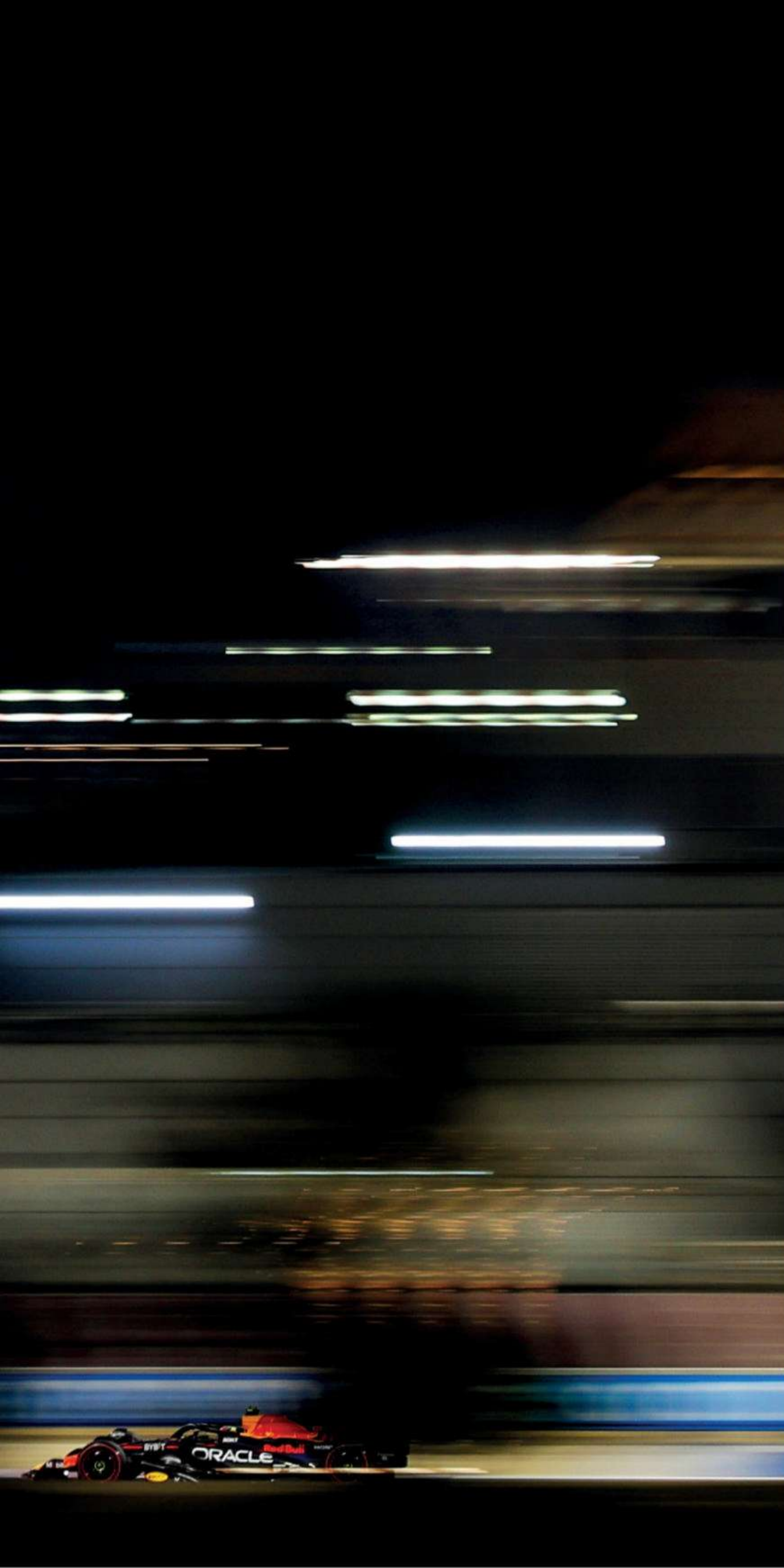
When 5:04pm, Sunday
7 May 2023

Details Canon EOS R3
70-200mm lens, 1/1600th @ F4









Start as you mean to continue

After a 22-race season it's a little odd to look back to the opening round, which feels like it was a long time ago but at the same time it could have happened last week.

This was towards the end of the second practice session. I'd ticked pretty much everything off the job sheet but I wanted to make use of the entire session. One of the interesting features of the Bahrain track is that there's a bit of elevation around it so you can find spots where you look down on the circuit. I was standing on one of the access roads and found this angle where the cars would be some distance away and shooting with a slow shutter speed would create nice effects with the neon lights. A very creative start to the season!



Photographer
Glenn Dunbar

Where Sakhir, Bahrain

When 6:46pm, Friday
3 March 2023

Details Canon EOS R3
100-500mm lens, 1/20th @ F6.3

WHY WILLIAMS BACKED SARGEANT OVER SCHUMACHER

01 **Logan Sargeant's rookie season** in F1 was anything but successful: a complete 'whitewash' in qualifying, 22 defeats out of 22 against Alex Albon, and just one point to Albon's 27 – and yet the American will remain a Williams driver in 2024.

Not only that but the decision was expected: Williams boss James Vowles had repeatedly stated the team was prepared to give Sargeant more time to fulfil his potential. At the end of the championship the team boss was due to take what was described as a short break to analyse the driver's progress – but, just a few days after the Abu Dhabi finale, Williams officially confirmed that Sargeant, a former member of the team's junior programme, would remain as Albon's team-mate.

The decision is partly explained by the lack of obvious alternatives. An early push by Mercedes to arrange a Williams seat for its reserve driver, Mick Schumacher, came to nothing and rumours in the autumn of a possible loan deal for Red Bull's Liam Lawson, who successfully replaced Daniel Ricciardo at AlphaTauri for a number of races, withered on the vine. In Abu Dhabi paddock chatter suggested that if Williams were to drop Sargeant, the main candidate to replace him would be Mercedes-backed Formula 2 driver Frederik Vesti. Ultimately, though, it would make little sense for the team to take on another rookie.

It was Sargeant's progress throughout the championship

that Vowles cited as the main reason for his contract extension. In the second half of the season, Logan not only scored a point at Austin, becoming the first American to do so in F1 for 30 years, but also had several strong qualifying sessions, including seventh in Las Vegas.

In the final reckoning his subpar

season overall didn't affect the team's placing. Albon's efforts were enough to enable Williams to finish seventh in the constructors' championship; sixth was always going to be out of reach.

"Logan has demonstrated immense skill while under the pressure of the world stage, making him a perfect fit for

Sargeant is the last driver to be confirmed for 2024, with Williams opting to give him another chance to impress

our team," Vowles was quoted as saying in the team's press release. "We have great confidence in his abilities and believe that together we can achieve even greater success in the upcoming season."

Sargeant's confirmation means the 2024 Formula 1 driver line-up will not differ at all from that of the final races of the 2023 season, since the other teams had already committed to making no changes. This is something that has never happened in the history of Formula 1.

Mercedes reserve Schumacher, having given up hope of returning to the Formula 1 grid in 2024, has meanwhile signed a contract with Alpine to compete in the World Endurance Championship. The son of seven-time world champion Michael will drive the new Alpine A242 LMDh prototype and represent the team in all eight rounds of the next WEC season, including the 24 Hours of Le Mans. He will at the same time continue in his Mercedes role.

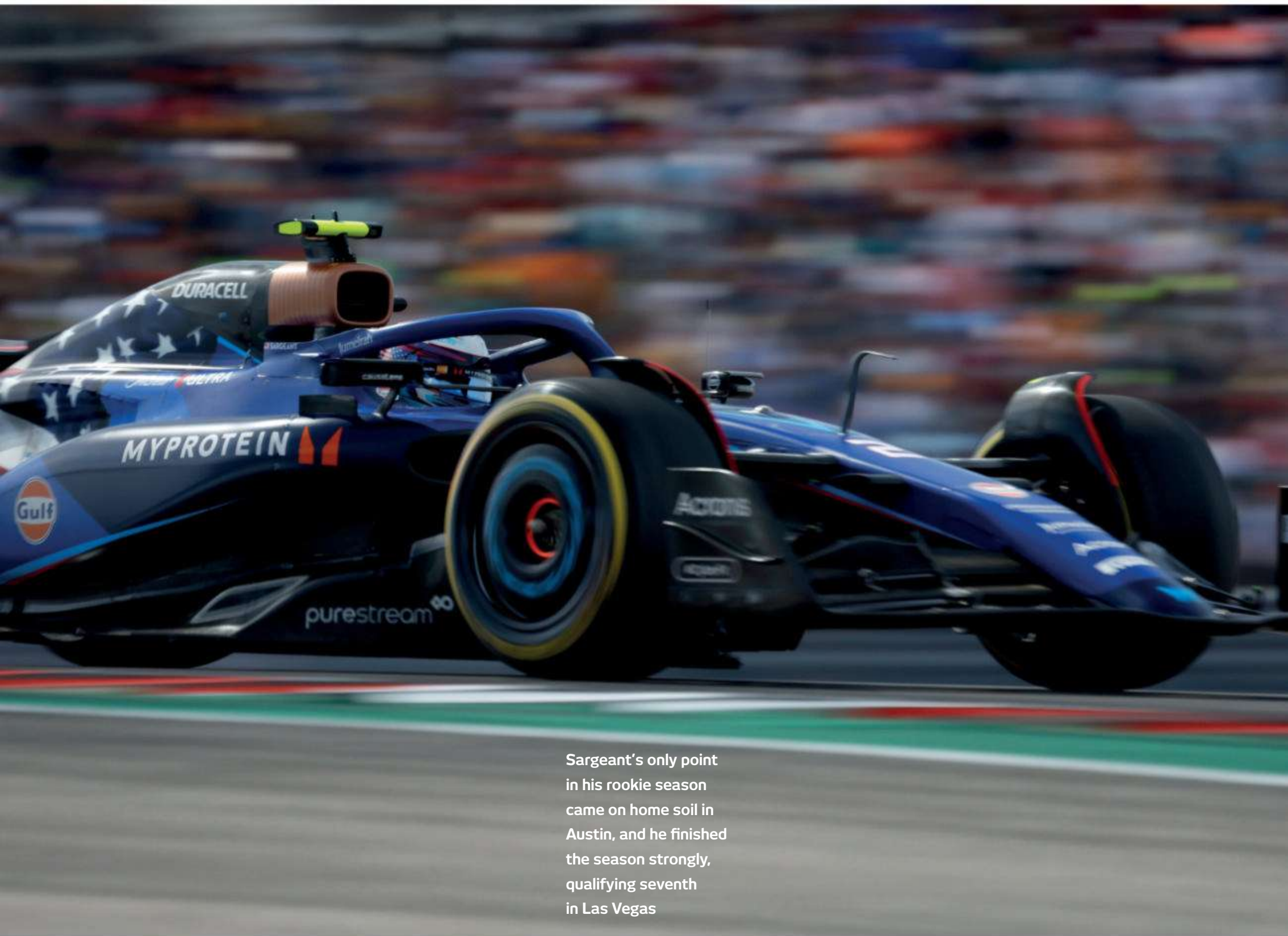
Sources close to Schumacher's camp claim the decision to continue his career in the WEC was made after Mick received a final 'no' from Vowles in early autumn. Vowles is said to be "not convinced" of Schumacher's talent after Mick's two seasons at Haas, and made it clear that he didn't see Schumacher in the team – even if he decided to drop Sargeant.

Sauber bosses, preparing for it to become Audi's factory team in 2026, are understood to be adhering to the same view, despite the potential appeal of Mick's surname and nationality. It's understood that another German, current Haas driver Nico

THE 2024 FORMULA 1 DRIVER LINE-UP WILL NOT DIFFER AT ALL FROM THAT OF THE FINAL RACES OF THE 2023 SEASON



PICTURES: SAM BLOXHA; GLENN DUNBAR; MARK SUTTON



Sargeant's only point in his rookie season came on home soil in Austin, and he finished the season strongly, qualifying seventh in Las Vegas



Liam Lawson (far left) and Mick Schumacher (left) had both been talked about as possible replacements for Sargeant if he had been ditched

Hülkenberg, is now the preferred candidate for the outfit and that he could have ended up in one of the Hinwil-based team's cars as early as 2024 – if not for Haas exercising an option to extend his contract for another season.

Sauber and Audi are expected to explore again a possible deal with Hülkenberg after the first races of the new

championship. These rounds are also likely to be crucial for Valtteri Bottas and Zhou Guanyu, who have represented the Hinwil-based team for the past two seasons and will remain with the squad in 2024.

Schumacher continues to insist that his main goal remains to return to F1, and that his racing comeback is his best attempt to change the minds of those F1 team bosses “not convinced”. Mick believes sharing a car with other drivers in the WEC will not prevent his personal performance and achievements from being recognised.

“Everybody out there, and I feel also in F1 in some sense, will look at the individual drivers still,” he told *GP Racing*. “People will still recognise that if you do your job exceptionally good.”

Mick confirmed he had considered options to continue his career in other single-seaters but that the Alpine offer was the most convenient in terms of combining his WEC appearances with his work for Mercedes as a reserve and simulator driver. It is understood Mick's contract with Alpine includes an early termination clause should he be offered the opportunity to return to the Formula 1 grid. ►

NO BUTS WITH TRACK-LIMIT BOT

02

Formula 1's track-limits issue has become so pervasive that the FIA can no longer manage it using human power alone. In Abu Dhabi, F1's governing body began testing a new system that will make use of artificial intelligence to assist its staff.

Three races in 2023 were particularly bad. In Austria the stewards had to consider more than 1,200 potential infringements and nine drivers were penalised, many of them several hours after the race because of the time required to process all the cases. In Qatar there were fewer incidents but they still had an impact on the result of the race as four drivers received penalties.

Finally, in Austin, the issue was again a topic of discussion – and the results took even longer to confirm. Owing to an incorrectly positioned camera, the stewards were unable to monitor track-limit violations at Turn 6. Following the race, Haas attempted to dispute the results using the Right of Review clause in the regulations. This was dismissed on a technicality (failure to provide “new evidence”) but the stewards – in their formal decision – described the situation as “completely unsatisfactory” and urged “all concerned” to find a solution.

The FIA has faced frequent criticism for delays in issuing decisions on track-limits breaches. Doubling the number of staff has ameliorated the problem rather than resolving it. With the number of potential infringements running into the hundreds, it seems almost impossible to track and process all of them in a timely manner using human resources alone.

During the Abu Dhabi weekend, the FIA began testing a new Computer Vision system in its Remote Operations Centre, which was set up early in 2022 to support race



Multiple instances of the exceeding of track limits first occurred in Austria, but the FIA is hoping AI will help its staff to process the offenders

control during F1 rounds from a base in Geneva. The FIA aims to reduce the workload on its staff by using modern technology. According to the plan, AI will be called upon to adjudge most of the incidents, leaving only the most complex ones requiring human intervention.

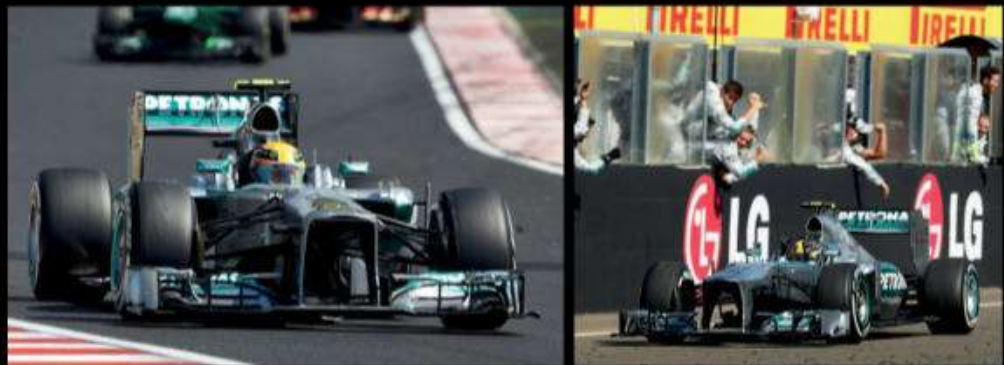
Deputy race director Tim Malyon explained: “It might sound strange but the methodology with this AI has a lot of parallels with discussions going on in medicine at the moment and the use of Computer Vision, for example, to scan data from cancer screening. What they’ve concluded is they don’t want to use the Computer Vision to diagnose cancer, what they want to do is to use it to throw out the 80% of cases where there clearly is no cancer in order to give the well-trained people more time to look at the 20%.

“What we’re targeting with the AI is to take that 800 [potential infringements] down to 50 – to remove the ones that clearly don’t need a human review. And that will allow the expert users in the ROC to look at a smaller number of potential infringements, which should further reduce the number of reports that go to race control, and overall increase the speed of processing.”

At the same time, the FIA wants to tighten up its requirements for tracks. Sources close to the governing body claim that the organisers of races in Austria, Qatar and Austin have been given firm instructions to solve the problem of track limits by introducing “natural limits” – such as gravel strips – in the most problematic spots. ▶

NEWS IN BRIEF... NEWS IN BRIEF...NEWS IN BRIEF...

CARS



THE MERCEDES W04 that Lewis Hamilton used in 14 of the 19 races in 2013, including his first win for the team in Hungary, was sold by RM Sotheby's at auction ahead of the Las Vegas GP. Chassis #4 went for a whopping £15.1m.

DRIVERS

Valtteri Bottas's naked calendar, put together by renowned photographer Paul Ripke, has raised around \$150,000 for the Movember charity into prostate cancer research.

TESTING

Alpine's Esteban Ocon topped the

timesheets at the Abu Dhabi post-season Pirelli test, held two days after the GP. 25 drivers took part in the single day of running and Pato O'Ward was second, for McLaren

ENTRY FEES

Red Bull's record-breaking 2023 season means the

team has to pay the FIA \$7,445,817 in entry fees for 2024. All teams have to pay a base fee and an amount per point, with an extra small payment for the constructors' champion. Second-placed Mercedes only has to stump up \$3,327,287 for the coming season.

PICTURES: ZAK MAUGER; MARK SUTTON; JAKE GRANT

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Possible penalties for failing to provide solutions, insiders claim, could go as far as the withdrawal of the licence to host F1 races and removal from the calendar.

Earlier this year FIA president Mohammed Ben Sulayem made it clear he wasn't happy with the current situation. Speaking about the track limit issue in Qatar, he said: "The solution is to improve the track itself. I know some are resistant to it, but to tell you the truth, if they don't, there is no race. It is as simple as this. We can't afford this."

McLAREN WITH MERC FOR LONG HAUL

03 Mercedes will continue to supply power units to McLaren after the next set of technical regulations comes into force. After months of negotiations the Woking team has signed a new contract, extending the partnership until the end of 2030.

The previous agreement ran until the end of 2025 – which would have been the transition point to the new generation of engines. McLaren team principal Andrea Stella confirmed in the summer the team had looked at other options, including working with Red Bull Powertrains, but in the end the decision was made to stick with a proven supplier.

"It was quite straightforward, because we are very happy with the ongoing collaboration," Stella said of the decision to continue. "They were absolutely instrumental, even in the progress of the team this year, I have to say. But above all, the kind of reassurance we got from a technical point of view, the operational standards, just how solid what we saw when we checked what was at stake for 2026, made this quite simple."

In 2026, six manufacturers will be building engines for F1: Mercedes, Red Bull, Ferrari, Renault, Honda and Audi. In addition, before the end of last season, General Motors announced plans to build its own F1 power unit. It has already registered with the FIA as a Formula 1 powertrain manufacturer for 2028, further strengthening the Andretti team's bid for a place on the grid in the coming years.

This bid has already been approved by the FIA, but is still awaiting approval from the championship's commercial rights holder. Until recently, FOM executives insisted that they see no point in expanding the number of entries, arguing any new team should increase the 'value' of the series – but now, following GM's announcement, many observers believe it will be very difficult to deny Andretti entry.

However, there was no further update on the matter before this issue of *GP Racing* went to press.

The top brass at Mercedes and McLaren following news of the new engine deal between them that is running until the end of 2030



THE PREVIOUS AGREEMENT RAN UNTIL THE END OF 2025 – WHICH WOULD HAVE BEEN THE TRANSITION POINT TO THE NEW GENERATION OF ENGINES

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- Q1** In which year was the last Argentinian GP held: 1996, 1997 or 1998?
- Q2** Eight drivers won a race in the 2012 season, but who was the final one to achieve the feat?
- Q3** Jan Magnussen's only world championship point came in his last F1 race. Which was it?
- Q4** Max Verstappen completed all 1235 laps in the 22 GPs in 2023, but which of the drivers who took part in all 22 races completed the fewest?
- Q5** True or false: Ferrari did not record a fastest lap at any of the 22 GPs during the 2023 season?
- Q6** Who am I? I started 152 GPs from 1973 to 1985 for various private teams, Surtees, Lotus, Penske, Brabham and McLaren, winning five times.
- Q7** At which GP in 2023 did Mercedes run first and second on the road for six laps?
- Q8** Five drivers took part in at least one practice session for AlphaTauri in 2023. Who was the only one who didn't race for the team?
- Q9** Which was the only GP that Fernando Alonso finished in 2023 where he was outside the points?
- Q10** Which drivers were classified as finishing last in GPs more than once during the 2023 season?



1 1998 2 Kimi Räikkönen 3 1998 Canadian GP 4 Esteban Ocon (1102) 5 True 6 John Watson 7 Australia 8 Isack Hadjar 9 Singapore 10 Kevin Magnussen (5), Logan Sargeant (3), Nico Hulkenberg (2), Valtteri Bottas (2), George Russell (2)

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THE F1 ANALYST

BEN EDWARDS

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technology with cars before becoming involved with motorsport, developing a role working with drivers as a cognitive neuroscientist. His initial connection with F1 was through Sir Jackie Stewart, another three-time champion who had already developed a remarkable mental strength. Especially when you consider how he struggled at school with dyslexia, which at the time nobody recognised.

In his biography *Winning is Not Enough* Jackie talks about his dismal failure of reading out loud in front of his class and the way it tipped him down a route of mixing with troublesome kids. But the lift he gained through success in clay pigeon shooting and then motor racing transformed him. He was never afraid to take big decisions, such as turning down a decent wage from new team boss Ken Tyrrell in favour of 50% of all prize money. It worked, as did his early close bond with Jim Clark, who was already a star but one prepared to offer good advice; in some ways Jackie's relationships and ability to ask questions before making decisions gave him a way of communicating that was as healthy as working with a psychotherapist.

Jackie also had a strong connection with Sir John Whitmore, who was a champion in British and European saloon cars in the 1960s

before stepping down from motorsport and combining a new love for sailing with exploration into the mental health world. He connected strongly with Tim Gallwey, the man who created the 'inner game' concept of coaching sportsmen. John would go on to write *The Winning Mind* in 1987 about the mentality of competitive sailing, a book I absorbed as a junior motorsport racer myself and which I found incredibly useful.

A couple of years later I was lucky enough to have John coaching me for a day at Silverstone, and simply through the techniques of focusing on tension in the hands rather than being wound up about lap times, improvements were rapid. My career as a racer fell away, yet I had learned how mental exercise from an experienced professional could lift a racer into a different zone.

Mental coaching has now become a key aspect from juniors to the very top of the pyramid. F1 teams employ experts not only for drivers but for staff members who go through intense seasons and need support. As David confirmed: "There's a lot more science and a lot more people into it now in F1. They should have someone there who's a mental coach for everyone. It's good practice for engineers to learn from those coaches because ultimately they become the driver's psychologist"

Whether that's the case for Lambiase's relationship with Max, we may never know – yet this is a crucial time for all F1 personnel to reset and aim for a bright new season.

HOW TO DEVELOP A CHAMPION'S MINDSET

As F1 drivers take a break from racing, the next few of months provide opportunities to refresh and rejig the mental aspects of being among the most focused and identified motorsport heroes in the world. Triple world champion Max Verstappen's mindset has been in a remarkable zone for several years, backed up by technical excellence from Red Bull and the unique relationship he has with race engineer Gianpiero Lambiase.

As Le Mans winner and former F1 driver David Brabham said to me recently, "Max has got a very strong and stable mental approach to the whole weekend; he doesn't allow any sort of negativity to come through – if it does it doesn't last long. He's extremely driven by perfection; he matured very quickly from when he first came in. I've been super impressed by how quickly he became a race winner with the mindset to become a world champion."

Son of three-time champion Sir Jack Brabham, David began his career in the late 1980s and delivered a superb victory in a support race at the Australian GP by getting himself into a mental



Verstappen's mental approach to the F1 weekend in recent years has been exceedingly strong

state which took him to a whole new level. That understanding of the brain input became a key part of his success in sportscar racing as he worked closely with mind coach Don Macpherson.

"He would get me into a meditative state where I could visualise, where I could create the scenario, the result and how I wanted to be prior to an event. So I was then able to go there and think, "OK, I know what's going to happen," so bang, off I go."

Earlier this year, George Russell confirmed his appreciation of working with mental experts through an interview with *Men's Health*. He feels that mental and physical health work together and talking to a professional has lifted him in a way that prepares him for taking on almost any challenges – while also helping him avoid some of the negatives.

Some years ago at McLaren, Russell's team-mate Lewis Hamilton worked with Dr Kerry Spackman, a man who started his career combining electronic



All champions will develop their winning mindset in different ways and Verstappen will be recharging his over the winter



After he finished racing, Sir John Whitmore started to explore mental health in the world of sailing



Stewart's close relationship with the already established Clark was a help when he first moved into Formula 1



Both Hamilton and Russell have had experience of working with mind professionals during their Formula 1 careers



Lambiase has a unique relationship with Verstappen, in a time when race engineers can be considered as quasi-psychologists



David Brabham realised early in his motorsport journey the benefits of using a mind coach



UNDER THE HOOD

PAT SYMONDS

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IF YOU CAN'T STAND THE HEAT...

Several races in the latter part of the 2023 season introduced extreme temperatures to the roster of challenges: Las Vegas, although not as cold as feared, was still one of the coldest races of recent years and Qatar was both hot and humid. Qatar highlighted that when certain facts align the outcome can lead to exceptional conditions that really stretch the abilities of the drivers in an athletic sense.

It's common practice these days for drivers to have to manage their way through a race. The car will generally be fuelled on the assumption that there will be periods when it is not flat out and the best strategic outcome will nearly always occur from stretching stints beyond the length of the tyres' full capability. This means that a large degree of fuel and tyre management is exercised by the driver. In terms of tyre saving, the aim is to limit the stress on the tyres in those corners where a high energy input leads to high degradation of performance. Now those high-energy-input corners are also those that put the highest loads on the

number of laps they can do before experiencing a sudden, non-linear, drop off in performance was 21 laps for the soft tyre and as much as 32 laps for the favoured medium compound.

This meant the drivers weren't required to do any 'tyre saving'. In other words, they could drive each lap as if it were a qualifying lap, something most of them had never had to do before in a Formula 1 car. The accepted strategy in Qatar was to drive as hard as possible and change tyres when tactically favourable or at the limit of their fatigue life. Such a situation in itself would not have led to a problem. Indeed, it was common practice in the days of refuelling and multi-stint races but the ambient conditions in Qatar that evening led to a

number of drivers being physically ill from adopting such tactics.

The reason for this lay not just in the temperature that night but the combination of temperature and humidity. As humans we're sensitive to many aspects of our surroundings other than just temperature. We often hear people say, "It wasn't that cold but the wind went right through you." In fact we perceive temperature as a combination of factors which include the actual ambient temperature, humidity, wind speed and the amount of direct sunlight or solar radiation.

Meteorologists express this in two ways. The more complex one is known as the wet bulb temperature and is pertinent to conditions of direct sunlight. The full calculation takes in factors such as wind speed and the angle of the sun in the sky. A simpler measure is called the heat index and many commercial weather forecasts will give this value. It takes a less rigorous approach of considering just ambient temperature and humidity and is more suited to conditions in the shade (or at night as in the race in Qatar). The heat index is expressed as a temperature which is calculated to be above ambient temperature when the humidity is high and gives an approximation of how the body will perceive the temperature. Some weather sites even express it as the 'Feels like' temperature. Even this doesn't account for the entire experience as direct sunlight can augment the heat you experience, possibly pushing the heat index up by 8 degrees.

That night in Losail the temperature was 32.2 degrees C and the humidity 74.8% ▶



The Qatar kerbs ultimately resulted in a race in which the drivers pushed on every lap in difficult humid conditions

driver – generally long, fast corners – and so any easing of cornering speeds saves not just the tyres from stress but the drivers too.

In Qatar this year a particular design of kerb was leading to severe damage to the structure of the tyre and, although changes were made to the track layout before the race to try and keep the cars off the kerbs, Pirelli decreed a maximum stint length of 18 laps. With a race distance of 57 laps this effectively mandated a three-stop race. While the tyres had a fatigue life limit of 18 laps, their predicted performance limit, in other words the

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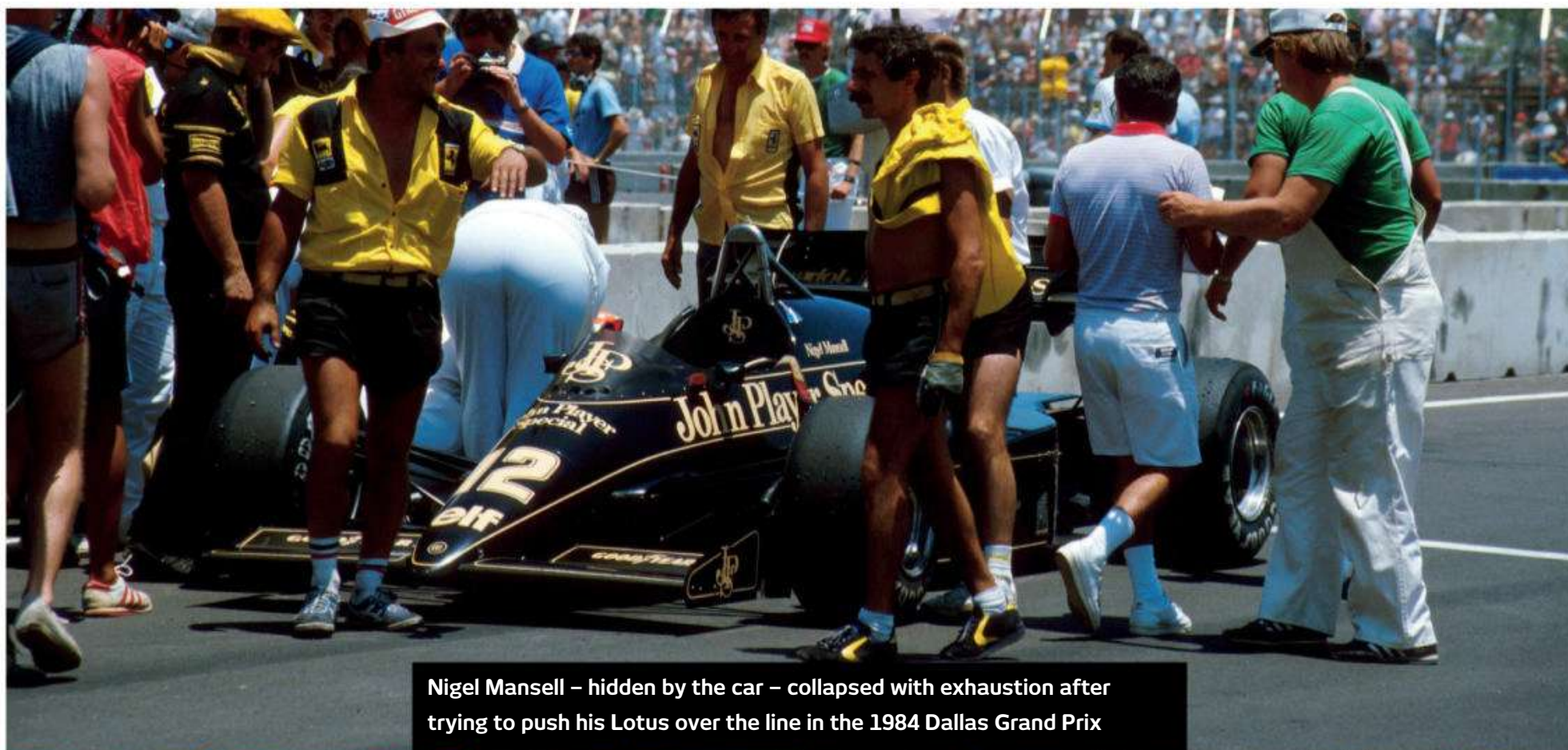
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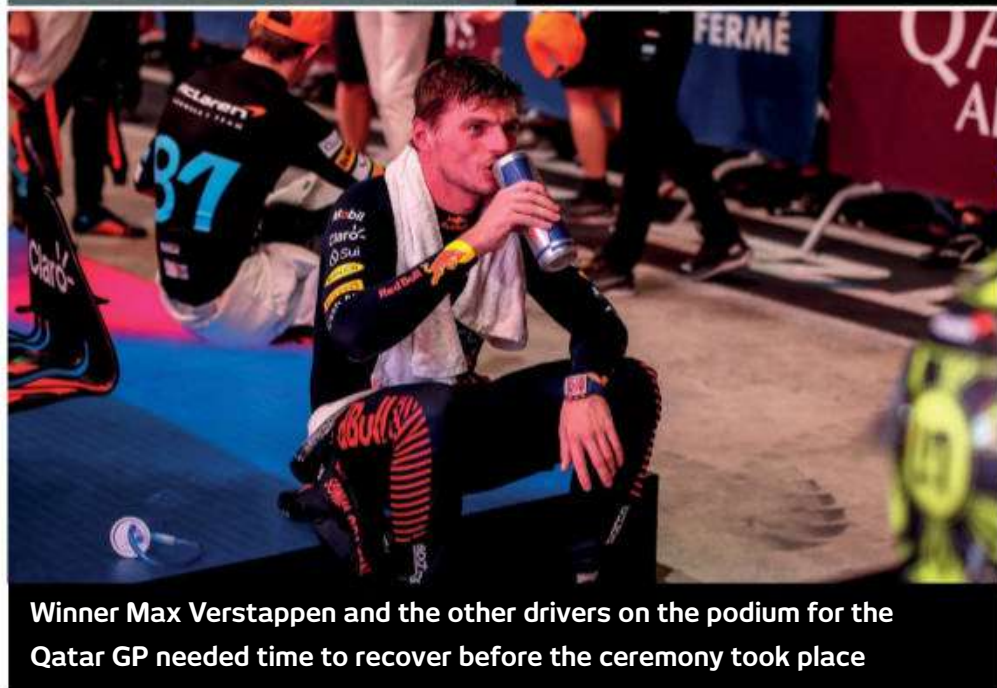
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Nigel Mansell – hidden by the car – collapsed with exhaustion after trying to push his Lotus over the line in the 1984 Dallas Grand Prix



Winner Max Verstappen and the other drivers on the podium for the Qatar GP needed time to recover before the ceremony took place



More pitstops in Qatar, due to the mandated tyre-stint lengths, meant drivers were pushing harder for much longer than in other races

mid-race. This equates to a heat index of 43.2 degrees. In other words, to the drivers, and indeed the mechanics and other personnel, it felt as if the temperature was 43 degrees.

Sports scientists have investigated the limits of heat index at which consideration needs to be taken when exercising. While opinions vary, they recommend extreme caution at a heat index of 39 degrees and anything above this is considered likely to cause heat exhaustion.

Some may say that drivers have coped with this before, but a trawl of historic data only showed one race, Malaysia in 2013, that exceeded this number when the heat index hit 45.8 degrees.

Singapore can reach the mid-30s and even Dallas in 1984, when Nigel Mansell famously collapsed at the end of the race, was just 39.3. At this race, where I was running Ayrton Senna, he and several others used cooled balaclavas under their helmets and all reported positively on their efficacy.

In IndyCars the advent of the aeroscreen initially caused problems for drivers due to the reduced cooling airflow but additional vents were mandated after Conor Daly reported he had lost 12 lbs and sustained an elevated heart rate after the Indianapolis Road Course race in 2020. This led to the compulsory introduction of forced air driver cooling as well as the option, which most

drivers adopt, of using a cooled undershirt when the heat index is high.

Since Qatar is reverting to a slightly later date in 2024 it's unlikely we will see such conditions again, but discussion has already taken place about allowing driver cooling systems to be used when the heat index exceeds a given value. There are many who wish they'd used them this year.

A TRAWL OF HISTORIC DATA ONLY SHOWED ONE RACE, MALAYSIA IN 2013, THAT EXCEEDED THIS NUMBER WHEN THE HEAT INDEX HIT 45.8 DEGREES



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STRAIGHT TALK

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A POIGNANT ANNIVERSARY IS ON THE WAY

Martin Brundle doesn't often take to social media since, with over a million followers across the main platforms, he understands both its importance and pitfalls. Particularly as the sport's pre-eminent English-language commentator.

When he does post something, it's usually an insightful comment or column worth reading. So it was when a 2 November photograph of him kneeling by Ayrton Senna's graveside appeared on my phone.

"I visited Ayrton's grave to pay my respects," he wrote, adding, "It's *Dia dos Mortos* in Brazil and the Cemitério do Morumbi Park was serene and beautiful. He must surely be resting in peace here."

In the first months of our New Year many more will join Martin in reflecting on the 30 years that have passed since the twin tragedies which robbed us of Ayrton and Roland Ratzenberger during the 1994 San Marino Grand Prix weekend.

Considering that 35 drivers were killed while driving Formula 1 cars in world championship events, non-championship races and tests between

1950 and that fateful weekend in Italy, the sport's safety record since then is nothing short of remarkable. Jules Bianchi's death following injuries sustained in the 2014 Japanese GP came as a complete shock to a generation of F1 personnel, media and fans who imagined that such things had been consigned to the history books.

This should not have been the case, of course.

Not only do the risks inherent in racing cars at 200mph remain, Maria de Villota's premature death in 2013, a year after her testing accident in a Marussia at Duxford Aerodrome, had ultimately been attributed to the neurological injuries she had sustained. The safety revolution championed by Max Mosley, supported by Bernie Ecclestone and executed by figures including Professor Sid Watkins, Charlie Whiting and Peter Wright can never be taken for granted.

While complaints about the size and weight of contemporary cars are all too common, no one doubts that the introduction of the halo saved drivers including Romain Grosjean and Lewis Hamilton from life-changing injuries or worse. Continuous improvement in safety must remain central to F1's technical and sporting regulations since,

in the study of safety, it's axiomatic that the further we get from the last tragedy the closer we get to the next one.

Given the profile of F1 today, vastly greater than it was in 1994, it seems unimaginable that a driver of similar stature to Ayrton should meet a similar fate while leading a race. Yet it's for precisely that reason we need to support those who carry the burden of

responsibility when it comes to policing teams and drivers, calling for Safety Cars or red-flagging a race.

I often find myself bemoaning contemporary F1's reluctance to 'let the drivers race' in bad weather conditions or appear to over-react following some relatively minor incident. The collective memory of what occurred in Imola 1994 and Suzuka 2014 needs to be constantly jogged and refreshed. Complacency is F1's enemy.

As we head into F1's most extensive season yet, with 24 races featuring a more diverse range of circuits than at any time in the sport's history, the foundation stones of safety have never been more important.

Let's hope the forthcoming anniversaries of Ayrton and Roland's deaths will serve as an opportunity to reset the determination of all involved to ensure that the next 30 years pass without further loss. The race to zero fatalities is one worth winning.



Senna's grave (below), visited by Brundle recently. Recent safety measure such as the halo have definitely saved lives, none more so than Romain Grosjean in 2020 (above)



THIS MONTH

Alex Holmes

Chairman and Chief Executive Officer, MoneyGram

Since MoneyGram was announced as the title sponsor for the Haas F1 Team in October 2022, the money transfer business has found unique ways to activate its brand through the partnership with the team, aided by the growing popularity of Formula 1 – as MoneyGram chairman and CEO Alex Holmes explains

CV

2016-present

Chief Executive Officer, MoneyGram

2012-2015

Chief Financial Officer, MoneyGram

2009-2012

Head of Corporate Strategy & Investor Relations, MoneyGram

2003-2009

Senior Vice President, First Data Corporation

2002-2003

Regional Director, Western Union

GP Racing: Alex, you've been with MoneyGram since 2009, could you tell us about the company?

Alex Holmes: In its various guises, MoneyGram has been around since the 1940s and our primary service operates across 200 countries to enable families to send money back home. A lot of the business is driven by migration – so people who leave their home country then look for opportunities in other markets. It's an \$800bn industry in terms of money that's moved home every year and MoneyGram has a 5% market share of that.

Traditionally money transfers were a cash-to-cash business where a consumer walks into one of our 450,000 locations around the world, for example a Post Office in the UK, and then sends money to another country. As the world has changed with mobile services, in the last decade we've become a more digitally focused company and now over half of all our global transactions are digital.

GPR: Why did MoneyGram enter Formula 1?

AH: There are a lot of reasons for that. Firstly, I've found sport to be a great unifier: as much as there is a battle between fans and rival teams, it also brings people together. Brands that are involved in sports have a higher value with fans.

Secondly we needed to change the perception of our company as we became more digitally focused. And also we became a private company, so we needed to increase our value and accelerate growth. We had been getting interest from NBA, NFL and Premier League teams, but simply putting a logo on a jersey didn't make sense for us – and no football team is going to change their name to MoneyGram FC.

The younger demographic watching Formula 1 is an important factor too. When we look at our walk-in consumer, around half are over the age of 40. But on our website, over 60% of users are under the age of 40. The average age of people watching Formula 1 is 32 years old. In contrast Major League Baseball, the average viewer is 57 years of age. So it made sense for us to promote and partner with a team in Formula 1.

INTERVIEW JAMES ROBERTS

GPR: Tell us about the association with Haas?

AH: We were approached by other F1 teams as well, but we felt Haas was the right way to go.

One of the things that was unique about our partnership is that they are the only American team (we're also based in the US) and also it was an opportunity to be a title sponsor. We could become the 'MoneyGram Haas F1 Team' and that's where the value of the deal differentiated from other opportunities.

MoneyGram is not the biggest, but we're trying to be the best. We're up for the fight and Haas is the same. We share a lot of the same principles. Haas have a great team of people that want to prove something to the world. We want to do the same too.

GPR: What is the impact of a race such as the Las Vegas Grand Prix for a title partner?

AH: It's often said that Formula 1 is like having a Super Bowl in every country 23 times a year. You feel that vibe when you go to races, often with 400,000-plus people attending over a weekend. For the sport to continue to grow it needs to continue to be more open and involve more people. Celebrity, music, excitement and the vibe all sells. Las Vegas has the opportunity, over time, to be the new Monaco.

GPR: Tell us about some of the activations MoneyGram has undertaken with Haas...

AH: We have a campaign called Drive Your Dreams and people who download the MoneyGram app have the chance to win a trip to a race. We've done it at five GPs this year and it's given us the chance to gift a trip to people – including a Ukrainian who sends money back home from Spain. We've also had someone from Yemen, plus a guy in Australia who sends money back to Nepal. We fly them to the race, get them a hotel and lifts to the track, they get to meet the drivers and Guenther [Steiner, team principal]. We had another activation where our top customers appeared in the logo on the car at Austin; we're trying to bring Formula 1 to people through MoneyGram.



SIGNS OF THE TIMES

In a high-tech sport, static branding is so last century – dynamic advertising is coming to a Formula 1 car near you soon...

F1 cars have long been described as mobile billboards, an advertising platform which just happens to circulate at 200mph in front of a global TV audience. For six decades sponsors and teams have negotiated and argued over which spaces on a car, driver or team are best – from sidepods to engine covers, rear wing endplates to wing mirrors and all points in between.

For a sport dedicated to movement, sponsors have had to inhabit a rather static environment, one that has changed little since those early days of oil and tobacco sponsors in the 1960s.

Enter Martin Turner, founder and CEO of Seamless Digital, a Towcester-based technology company which has pioneered the use of lightweight, low-energy screens which enable sponsors and their messages to appear, disappear or change at will. It has worked with McLaren since 2022 and, after successful testing, will be used by AlphaTauri during the new season.

It's a fascinating development if you're into that sort of thing, which the more than 300 companies supporting F1's 10 teams most certainly are.

"The idea is to find a way of monetising an F1 car from an engineering standpoint," says the former Jordan GP vehicle science technician who also founded Silverstone Paint Technologies in 2008. "We're a company made up of fans, to be honest, we want to use our capabilities to help teams not only make the cars go faster but also unlock ways to raise more money."

Silverstone Paint Technologies has become a key supplier to 70% of the Formula 1 grid, developing lightweight paints, coatings and composite solutions to ensure teams can offer their sponsors the branding they want while keeping weight under control.

In many ways Seamless Digital was a natural next step for Turner and his team, launching into the world of MDOOH – Mobile Digital Out





For years F1 cars have been bedecked in sponsor logos. The next step is logos that change during a race

of Home – and applying it to F1. If you’ve seen a roadside billboard suddenly transform into a digital screen, or caught sight of the way entire buildings are now used as enormous, ever-changing screens in cities such as Las Vegas, you’ll already know how impactful it can be.

“We first worked with Manor Racing on the concept as they had a potential title sponsor in the pipeline, but it never materialised,” recalls Turner. “We had observed the way Google doesn’t go for one big advertiser but instead sells smaller advertising slots, and that seemed to be a way of adding value to media exposure on F1 cars.”

A prototype display was built and presented to Formula One Management, demonstrating how screens could be used to not only display sponsor brand names, but specific messaging, focusing on certain moments during a race or over the course of a weekend. The benefit is clear: teams and sponsors can work to tailor messaging,

adding an entirely new dynamic to the business of communicating with race-goers and viewers.

“We want to offer flexibility to the commercial teams, potentially selling space lap by lap or a moment such as a team’s pitstop. The other option to explore is where a team sponsor such as Unilever, one of McLaren’s partners, could have sub-brands appear, or specific categories of products depending on what’s happening.”

A champagne brand could appear on the car when the driver has scored a podium finish, or a water brand each time the driver hydrates during the race. The degree of personalisation is almost endless, as well as instantaneous.

The technology has to meet the demands of race teams, which typically dislike anything that adds weight or consumes power, and to meet the strict compliance of organisations such as Ofcom, the UK’s communications regulator. Branding which covers more than 25% of a broadcaster’s

screen is not permitted, for example.

“If there was no weight issue we could provide a display on an engine cover or nose cone,” says Turner. “That’s one of the reasons teams are depleting the use of colours on cars as the lightest paint liveries are now 1kg, the heavier ones around 3kgs. The displays we currently use are less than 100 grams and our primary focus has been the cockpit area as on-board shots account for around 20% of media value.”

Turner’s team of 15 staff are also working on applying the displays to helmets, with hardware weighing as little as 18 grams, while other potential applications in sport include NFL helmets, cricket bats and even MotoGP leathers.

In F1 the system is pre-programmed, since the rules forbid remote transmission of data to the cars, but who knows what the future may hold. A real-time social media post on your favourite driver’s car? Start bidding.



Dynamic branding can deliver messages or sponsors at different times. McLaren (left and below) has already done so in the panel next to the driver and AlphaTauri (right) is set to follow in 2024





WELCOME

Max Verstappen
has joined the elite
group of grand prix
drivers to have won
three or more world
championships.

But how does he shape up against the
ones who have gone before, and why
does he resist comparisons with them?

Does he redefine greatness?

And where might
he stop?

WORDS ALEX KALINAUCKAS PICTURES  **motorsport**
IMAGES

TO THE CLUB

Very little fazes Max Verstappen.

As Formula 1's current dominator, and now a triple title winner, he's wise to rivals' attacking moves and the media's probing work.

Indeed, he's instantly dismissive of comparisons with other world champions – publicly at least. Repeatedly on the weekend he sealed his most recent triumph, in Qatar, he insisted “I find it very hard to compare world champions”. But that's consistent with his messages every time the subject has been broached on his waltz to the 2023 crown.

He's sensible to avoid the PR pitfalls of winding up fans with long memories. Plus in maintaining modesty here Verstappen avoids handing a competitive edge to his rivals, in that they might use his desire to replicate an older hero to try and knock him off course.

Historical comparisons are to a driver an example of losing focus – risking the ‘next race up’ mentality so required to win championships. But, for us mere mortals, who doesn't love a good debate on a driver's place in the overall F1 legend? It's a topic horribly polarised on social media, where even posing such a question is often taken as an implicit threat where, of course, none exists.

Here then, is the perfect arena to compare and contrast Max with his fellow three-time (and more) F1 champions.

A ONE-TEAM CHAMPION?

Juan Manuel Fangio's famous 1950s run took in titles with four teams – Alfa Romeo, Mercedes, Ferrari and Maserati. A master of manoeuvring himself into the best cars – his reputation as a gentleman on the track and the best racer of the world championship's first decade eased his path between seats.

So far, Verstappen hasn't needed to force a move to another team – not since his father, Jos, and manager Raymond Vermeulen made it clear he was ready for that famously record-setting F1 promotion at 17 and Red Bull had the means to accommodate him in F1 immediately with Toro Rosso when Mercedes, his other suitor, did not. Then, Daniil Kvyat's savage ousting brought Max to Red Bull's senior team in 2016 – so young he could still do much learning plus the odd, impressive, bits of winning – at a crack operation. Verstappen has a contract with his current squad until 2028 ends. With few changes to F1's technical rules in prospect until the 2026 ▶

“RED BULL HAD THE MEANS TO ACCOMMODATE HIM IN F1 IMMEDIATELY WITH TORO ROSSO WHEN MERCEDES, HIS OTHER SUITOR, DID NOT”

The circumstances of Abu Dhabi 2021 were controversial, but Verstappen's first title meant everything to the Dutchman, who has now added two more to the tally

Promotion to the Red Bull senior team from Toro Rosso paid dividends immediately with Max's first win, in Spain in 2016, coming in his first race for the team





Max with his race engineer Gianpiero Lambiase in 2016. Lambiase has been a constant presence for Verstappen ever since Max joined the Red Bull team

THE ONES THAT GOT AWAY

Behind the triple-champion-and-higher club sit six double F1 world title winners. Intriguingly, each has a case that they either over- or under-achieved.

Starting with **Alberto Ascari**, his could be said to cover both. Indeed, had Ascari not fallen out with Enzo Ferrari over money at the end of 1953 and then died testing a Ferrari sportscar at Monza 18 months later, he had the speed and combined characteristics of potentially matching Juan Manuel Fangio as the leading driver of the world championship's opening decade. Then again, of all the title winners, he's the only one that actually never won one in F1 machinery, since the dearth of top-level grand prix cars forced the world championship to embrace F2 cars in 1952-53.

Jim Clark is, of course, another who surely would have gone on to score more than two world titles but for his untimely demise in an F2 race at Hockenheim in 1968.

That unfortunate development boosted **Graham Hill** to his second championship, although many would consider it churlish to suggest this diminishes Hill's achievement.

Of the modern era, **Mika Häkkinen's** star waned after losing the 2000 title to Michael Schumacher – not helped by his big crash early in the 2001 Australia opener. And then there's **Fernando Alonso**. Such a canny racer in the mould of Niki Lauda or Alain Prost to Max Verstappen's always-on-edge Ayrton Senna, Alonso might be a five-time champion himself but for tiny points swings across the 2007, 2010 and 2012 campaigns.

F1 also has 17 one-time world champions. Some are perhaps deserving of the reputation of simply having been in the right place to maximise a great car throughout an otherwise good-but-not-great career (few pundits would place **Keke Rosberg** in that category, though). As F1's only posthumous world champion, that tag seems unfair to **Jochen Rindt**.



THE CHAMPION MENTALITY

McLaren team boss Andrea Stella knows plenty about truly great racing drivers. After all, he race/performance-engineered both Michael Schumacher and Fernando Alonso during his time at Ferrari – plus Kimi Räikkönen too. He’s therefore a particularly pertinent paddock figure for understanding exactly what kind of a mentality a multi-champion really requires to reach that level in Formula 1.

“These qualities have to do with being able to continuously improve,” says Stella. “I’m sure there were a lot of people that were talented, but it didn’t lead anywhere because there was no attitude to continuous improvement.”

Stella also highlights



“values” in terms of “collaboration with the team”. This, he believes, means understanding “we have the person behind the driver”.

He adds: “For us, it was important to make sure that the person that we keep on board is a person that not only fits our culture, but will contribute to establishing the culture even more. And potentially adding to the culture, adding to the values, and the behaviours that make us become a team of mates.

“There is somebody who [also] worked with Michael in the paddock, who is at another team. He said to me [Schumacher] was ‘so capable of building families’. While it was definitely tough on track, within the team – the spirit, the sense of unity – there was no shortage of a sense of family.

“So, I’m referring to natural talent, attitude and culture and values [as the mark of a true great].”

But who is the sensational young driver Stella is alluding to? Not Max Verstappen, of whom Stella says “I don’t know Max well enough to try and answer [in comparison with Alonso and Schumacher]”. No, it’s one Oscar Piastri...

Verstappen has launched his own Esports venture but is unlikely to follow Brabham down the team ownership route

campaign, there’s every chance that long-term deal could include a run of five straight titles.

Jack Brabham never got beyond three titles in 1959, 1960 and 1966 – his first two for Cooper and the last for his own eponymous squad. In 2022, Verstappen launched his Verstappen.com Racing Esports venture, which includes the Team Redline organisation he has long raced for online. He recently expressed his ambition to one day “have a way of sim racers [from his Esports team] making it into a real car”. Given the staggering sums required to buy an F1 team these days, though, it’s unlikely Verstappen would look to follow

“VERSTAPPEN, AS HIS FATHER JOS SAYS, ‘TELLS [IT] STRAIGHTFORWARD HOW THINGS ARE’”

Brabham down the team ownership route.

More pointedly in this case, we might assess the characters of these two men to find a more tangible similarity. Brabham was a man of few words and what he did say made his meaning crystal clear. Verstappen, as his father Jos says, “tells [it] straightforward how things are”. He simply has no time for poorly conceived or phrased questions and isn’t afraid of letting a journalist know as much – he outright points out his chagrin. That isn’t to say Max doesn’t play certain media games – the mere mention of Hamilton’s name risks a line of questioning being shut down, especially away from televised interviews.

RISK, REWARD AND ETIQUETTE

Another point of alignment between Max and Sir Jack – and a clear line of difference between Brabham and, say, Jackie Stewart and Niki Lauda, is that Brabham wasn’t afraid to push the limits of racing wheel-to-wheel. Famous instances of him ▶



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deliberately dipping wheels off-track to spray stones in the face of those chasing him highlight what a different era he raced in, compared with Verstappen and the current pack. But also that he would entertain a style of aggressiveness Stewart and Lauda would not.

Verstappen’s early years in F1 prompted the FIA to change the racing rules to stamp out late direction changes in braking zones. The ‘Verstappen rule’ arose in 2016 but, while F1’s focus upon it has faded and, indeed, the rules of engagement have been updated since (teams are sent ‘Driving Standards Guidelines’ each year), his uncompromising style has persisted.

Stewart in particular will be remembered, indeed lauded, as one of F1’s great safety campaigners – even though in his racing days it attracted criticism. Lauda was famous for refusing to consider taking even a single percentage point risk more than a situation merited. Verstappen isn’t a leading figure in the Grand Prix Drivers’ Association (George Russell is the only currently active racing member of its leadership) and showed in 2021 he was clearly prepared to risk contact to gain any edge in the bitter title battle that season.

The penultimate mere triple champion shares much with Verstappen. Not only did Nelson Piquet win all his titles on days other than Sundays (Fangio and Brabham also clinched championships on Saturdays), his daughter Kelly is Verstappen’s partner.

Piquet was a polarising figure when actively racing and his reputation has taken even more of a battering in recent years after he used racist and homophobic language in reference to Hamilton. In some ways this was keeping up a tradition, since during his active years he was unafraid to offer spiteful commentary about his rivals’ personal lives. Verstappen has made awful remarks too – specifically his use of “retard” and “mongol” to describe Lance Stroll in practice for the 2020 Portuguese GP. But of course, drivers of much older eras didn’t have their every adrenaline-surge-prompted word played out to a global audience. Whatever offensive terms they might have given vent to at the time were lost in the wind rather than being inked into any assessment of their legacies.



Kelly Piquet, the daughter of another triple world champion Nelson, is Verstappen’s partner



Verstappen will want to forget his choice response regarding Lance Stroll in Portugal in 2020

RIGHT PLACE, RIGHT TIME

Of all the multi-champions in this list, Piquet’s racing record is the one that stands as an outlier. He reached a rare level of title success, with 23 wins along with way, but never shook the reputation of being a driver in the right place and the right time, who maximised what he had with Brabham and Williams, but never forced more.

Alain Prost, of course, did. The Frenchman’s achievements ▶



MAX VERSTAPPEN

Total titles won	3
Years active in F1	2015-
Seasons active in F1	
on achieving third title	9
Races contested to win third title	180
Win percentage on claiming third title	27.22%

MICHAEL SCHUMACHER

Total titles won	7
Years active in F1	1991-2006, 2010-2012
Seasons active in F1	
on achieving third title	10
Races contested to win third title	152
Win percentage on claiming third title	28.29%

LEWIS HAMILTON

Total titles won	7
Years active in F1	2007-
Seasons active in F1	
on achieving third title	8
Races contested to win third title	164
Win percentage on claiming third title	26.22%





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JUAN MANUEL FANGIO

Total titles won	5
Years active in F1	1950-1951, 1953-1958
Seasons active in F1 on achieving third title	5
Races contested to win third title	34
Win percentage on claiming third title	47.06%

ALAIN PROST

Total titles won	4
Years active in F1	1980-1991, 1993
Seasons active in F1 on achieving third title	10
Races contested to win third title	152
Win percentage on claiming third title	25.68%

SEBASTIAN VETTEL

Total titles won:	4
Years active in F1:	2007-2022
Seasons active in F1 on achieving third title	6
Races contested to win third title	100
Win percentage on claiming third title	26.00%

AYRTON SENNA

Total titles won	3
Years active in F1	1984-1994
Seasons active in F1 on achieving third title	8
Races contested to win third title	125
Win percentage on claiming third title	25.60%

JACK BRABHAM

Total titles won	3
Years active in F1	1955-1970
Seasons active in F1 on achieving third title	12
Races contested to win third title	81
Win percentage on claiming third title	13.58%

JACKIE STEWART

Total titles won	3
Years active in F1	1965-1973
Seasons active in F1 on achieving third title	9
Races contested to win third title	98
Win percentage on claiming third title	27.55%

NIKI LAUDA

Total titles won	3
Years active in F1	1971-1979, 1982-1985
Seasons active in F1 on achieving third title	12
Races contested to win third title	157
Win percentage on claiming third title	15.286%

NELSON PIQUET

Total titles won	3
Years active in F1	1978-1991
Seasons active in F1 on achieving third title	10
Races contested to win third title	143
Win percentage on claiming third title	13.99%



across his four titles took in facets Verstappen hasn't covered (yet) but others have, such as winning for different teams – in this case McLaren and Williams. His 'Professor' reputation was staked on winning at the slowest speed, least risk possible – something he shared with Stewart and Lauda.

Verstappen's insistence to make a late third stop in the Austrian GP, very much not at Red Bull's behest, show he's willing to take unnecessary risks even for the comparatively paltry prize of a fastest-lap bonus point.

The early F1 career of Prost's great rival, Ayrton Senna, actually somewhat mirrors Verstappen's own. During his days at Lotus after scoring impressive rookie-season podiums with Toleman, Senna was able to snare a couple of famous wins a season (Verstappen did likewise with his record of two a year, minimum, between 2017 and 2020). Then, when catapulted into title contention with McLaren in 1988, Senna's victory statistics exploded – much as Verstappen's did when Red Bull finally made it back to challenging for championships in 2021.

In Prost and Senna, plus the remaining multi-champions we're still to cover, Verstappen shares in sitting near the top of the F1 win total pile. They are fifth and sixth, while Max's 53 puts him equal third with Vettel. Only Schumacher and Hamilton have more. To be ahead of such legends is something Verstappen "doesn't look at", says his father, even if Max "knows about it... I don't think it matters too much to him".

"But, for me," adds Verstappen senior, "it's something very special to see."



Prost won championships with different teams and, like Stewart and Lauda, did so with the minimum risk possible

LIVING ON THE EDGE

Having been Benetton team-mates in 1994, Jos and Michael Schumacher struck up a friendship that would go on to involve their families sharing holiday trips. Jos reckons, with his son having the chance to put down a run as dominant now as his friend did 20 years ago, that the pair have "very close" abilities to hyper-focus on all the smaller elements that help steer a championship campaign. Famed F1 designer Adrian Newey says that, much like Schumacher, Verstappen can "drive the car almost sub-consciously and that then leaves him with plenty of processing power to think about what the car is doing".

Like Senna, Verstappen shares with Schumacher a ▶

As with Verstappen, Senna won a couple of races a season before he got into a title-winning car



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SCAN ME

COULD MAX BE THE GOAT?

It might not be his outright stated quest but, given he's only 26 and already a triple world champion, Max Verstappen has time on his side to match F1's current title and victory statistics record holders: Lewis Hamilton and Michael Schumacher. That would go some way to settling the always subjective Greatest of All Time (GOAT) debate.

His path to F1 greatness started as a precocious, driven 17-year old with "a curiosity to push everything around him on the car, on the people working for him, and then the driving skills". Those are the words of his first race engineer at Toro Rosso, Xevi Pujolar, now Alfa Romeo's chief trackside engineer, who saw this "from day one, from the first test".

This demanding nature can be heard most publicly in Verstappen's at-times tetchy team radio conversations with current Red Bull engineer Gianpiero Lambiase. But Red Bull not only rates his feedback as "good – not overcomplicated", according to the squad's legendary chief technical officer Adrian Newey, but it recognises his attitude as that of a true great.

"He certainly doesn't lack motivation in any way, shape or form," reckons team boss Christian Horner. "And I think it's that inner desire that really drives him.

"All the greats had a huge hunger and determination. We saw that in Sebastian [Vettel], who also was hugely competitive – didn't want to leave anything on the table. And Max even takes that to another level. He's not obsessive in chasing records or statistics, although he

knows more than you think, but he has an inner desire."

On cold, hard statistics, Verstappen could well end up topping plenty of tables in F1 history books. Firstly, his youth combines with F1 careers now lasting longer than ever and the packed modern schedule meaning two campaigns now encompass event totals that even 20 years ago would take three. But even though he won't admit it publicly, Verstappen also possesses an innate desire to 'win' every session he can.

He has a record of delivering immediately even in practice sessions – boosted by a desire to prove his worth early in his career and helped by his impressive skills on low-grip surfaces. In 2022, Verstappen would regularly take the top spot even if he started an FP1 session later than his rivals. He's "hugely competitive, hugely hungry", according to Horner, which means he "doesn't want to leave anything on the table – whether it's a sprint race, GP or qualifying session".

This, perhaps, combined with his obvious desire to extend the season total win record he's now broken twice, and the attitude that he'd never gift even a point to a team-mate if possible, may end up being Max's swaying factor in the GOAT debate.

But, of course, he'll need a car to match his abilities and desire. Dominant eras always end and then F1 will see just how keen Verstappen is to keep extending his run or if the endurance racing elements he's admired – mainly via online challenges – prove to be more desirable than forcing his way to another frontrunning team. If Red Bull's 2026 engine and chassis package isn't leading the way, expect this point to arrive then.



Verstappen has a similar driving style to Michael Schumacher, who attacked corner entries fast and then lived with the consequences

reputation for aggressive driving which often crosses the line of what is (or should be) acceptable. But the inescapable conclusion from such a comparison is Max's transgressions don't come anywhere near Schumacher's in terms of severity.

But a much more important similarity between Verstappen and Schumacher concerns their driving styles. Both attack corner entries ferociously fast and then just live with the inevitable rear-end movement that comes as the apex approaches. A succession of Verstappen's Red Bull team-mates have been unable to match him here – particularly when it comes to making this effective in low- and medium-speed turns. A rapid car rotation strength on corner entry for one particular driver isn't actually all that new for Red Bull, as Sebastian Vettel famously made an art of doing this in the 2010-2011 blown-diffuser days.

For both Verstappen and Schumacher, having done so much of a corner already even before fully getting to it via sharp car rotation, steering lock can be released earlier. In Verstappen's case, this significantly contributes to his mastery of the Pirelli tyres. Until relatively recently, this was an overlooked part of his game – even though he shares with Hamilton a brilliant ability to 'manage' modern F1 tyres.

Where Verstappen and Schumacher differ on driving style is that Max's is smoother overall, which again aids his tyre-



Sebastian Vettel was Red Bull's first multi-champion, winning his four titles with the team from 2010 to 2013

preservation needs. But it actually harms him on street circuits, where harder steering inputs are rewarded. Even though he's taken five victories on such territory so far, Verstappen even professes to "personally [not] really enjoy street circuits", which makes it one of the standout weak points in what is still an overwhelmingly brilliant racing package.

He's not Red Bull's only dominant multi-champion – Vettel got there first a decade earlier. The pair, who are Formula 1's youngest ever champion (Vettel) and race driver (Verstappen) have accrued 39 and 53 wins for the energy drinks giant. The rest of Vettel's 53 total stem from his unsuccessful move away to Ferrari. ▶



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Vettel was famously “very methodical and organised in the way he went about his racing”, says Red Bull’s only team boss, Christian Horner. Vettel would pore over every single detail he could consume – even visiting the Pirelli factory early in his stint as F1’s sole tyre supplier to better understand the rubber. When asked if Verstappen would do the same, Horner will only say he’s “the most straightforward driver that I’ve ever had”.

Vettel also racked up 57 poles in his F1 career, with Verstappen currently sitting on 32. This is a slightly unfair comparison right now for Verstappen as Red Bull’s first attempts at ground-effect cars in the RB18 and RB19 are deliberately engineered to be kind on their tyres in race stints, so suffer with comparatively poor qualifying warm-up



on rubber that is hard to get working perfectly anyway. But nevertheless, it is Ferrari’s Charles Leclerc who is considered the fastest one-lap specialist of the current crop.

LOOKING OUT FOR LEWIS

Hamilton tops the list of most F1 poles with 104 but, like Verstappen, qualifying speed isn’t the most significant part of his armoury. For so long, a lack of mistakes once he’d escaped a run of making them early in his career (Verstappen’s early 2018 errors and un-acknowledged reaction to them are pertinent here) characterised Hamilton’s run to topping F1’s title charts with Schumacher. Plus leading the way in wins overall on 103.

Indeed, Hamilton’s clean-racing reputation only got called into question when Verstappen forced him to give as good as he was getting wheel-to-wheel in 2021. But what sets the pair apart most is Hamilton’s willingness to embrace his F1 fame and leadership. While Verstappen will speak up on topics that irk him, Hamilton routinely fronts up to F1’s many contradictory issues and acts as a natural ambassador away from the paddock – from talk shows to fashion and music.


Hamilton isn’t done with F1 yet, but is closer to the end of his career than the start as he chases the eighth title taken away



Lewis and Max are very different personalities with different voices (top & middle, right). Lewis’s recent failings (middle, left) indicate a downturn but Max has overcome early errors (middle, right)

from him in the Abu Dhabi officiating saga. Verstappen appears to still be approaching his ‘peak’, with Hamilton respectively going the other way – judging by his poor errors in recent years on the opening laps at Spa 2022 and Qatar 2023.

So, might Max one day match Hamilton and Schumacher on seven titles or even score more? Jos knows there’s one important element – evident in the success of all these champions to different degrees – that cannot be overlooked.

“You need the equipment to do it. If he has that, he will do it. But [if not], then not. It’s very simple.” 

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IN CONVERSATION WITH

WORDS MATT KEW

PORTRAIT JAMES SUTTON/MOTORSPORT IMAGES

LEWIS HAMILTON

Still targeting that elusive eighth world championship, Formula 1's most bankable star opens up about how he's driving his Mercedes team to get back to the front...

You were happy to see the back of 2023 and the Mercedes W14. But there must have been some positives from the season that you've held onto.

There's been a few. Getting pole position in Budapest – we didn't think that was going to be possible when I first drove the car. The upgrade in Austin and the fact that given a couple more laps, we may have been in shooting range for a win. Just seeing that we were slowly morphing the car into a more competitive machine. It was more and more enjoyable to drive, fighting in a position where you're actually going forwards rather than backwards.

But it still fundamentally was not the winning car. That's what we've got to change. The dream is to make sure that when we start this year, it's not a replica. But I'm pretty sure that's not going to be the case.

Toto Wolff says every component has changed to create the W15. Can starting from scratch take you close to Red Bull given it's had two years to develop its concept?

It's not as easy as that. You have to try and take the good parts and, through trial and error, try to add other parts. But you can imagine Red Bull are also nervous of making too big a change and it being the wrong one. We need to be, consistently, week-on-week, adding performance. We have higher targets than ever before because we have a massive gap to catch. That makes it really tricky. I do believe we have a North Star now, which I don't think we've had for two years. But still, getting there is not a straight line. But I think we understand the car so much better now. We've developed great tools in the background. Naturally, I'm hopeful, but I'm not going to hold my breath.

Just how much pressure is there on Mercedes to get it right in 2024?

A huge amount. Ultimately, as a boss like Toto, you have to start leaning on people more rather than backing off on them. How you do that is not easy, as people break at a certain point. So how do you do it in a constructive way, in a way that's inspiring them to continue?

For me, hopefully some of the race results and drives that I've been able to put in, I like to think that sparks inspiration for the guys, like "Oh, we're almost there". That trickles down through the whole system like "Oh, he's still got it. If we work hard and we give him the car, he's going to take us there". That's what I strive to be able to do.

Is winning an eighth world title important enough for you to move team?

Hopefully signing [a new contract] has showed my commitment to the team. Let's be realistic, every single driver that's racing in F1 dreams of being in the winning car. Probably in my younger days when I hadn't had a lot of success, maybe in those McLaren days, it would be a lot more attractive.

When I moved to this team, I enjoyed moving from a more successful team to a team that

hadn't had success, with the vision of growing and building with the team. When we then did win, it was such a better feeling. I feel like we've had two really difficult years and if we work towards beating the [Red Bull], that's going to be a way better feeling than just stepping into the best car. Working with my team to build to be able to beat them would be better for my legacy.

Was there ever a period in 2023 when you thought about breaking off contract renewal talks with Mercedes in case two more years of struggles await?

No, not when we were doing negotiations. I do have faith that we'll get there. We've been here before as a team. While we have more new people, we still have great values. I see great focus within everyone. Last year [2022], the people at the factory thought the fundamentals were good. That's why I was frustrated in February because they hadn't made the changes I'd asked for. But with the changes we're making I hope I was, and we are, right.

Have two seasons of disappointment extended your Formula 1 career since there's now this process of trying to get back to the top of the championship?

It might have shortened my life! Stress definitely shortens your life expectancy. If we'd continued from 2020 on that gradient for the past three years, who knows.

I'm grateful for the challenge we've had, the lessons we've learned as a team. It has been massively challenging from a human side as well – outside of the car, how you are as a team-mate to all the people you're working with. It has been strengthening.

I'M GRATEFUL FOR THE CHALLENGE WE'VE HAD, THE LESSONS WE'VE LEARNED AS A TEAM

THE LONG INTERVIEW

To a certain generation of Formula 1 viewers he's the 'man on fire' in Bahrain 2020 or the hapless target of Haas team boss Guenther Steiner's colourful invective. But he was also the only person to challenge a dominant Sebastian Vettel in the latter half of 2013, and briefly a potential championship contender...

WORDS OLEG KARPOV
PORTRAITS ANDY HONE

THIS IS

ROMAIN GROSJEAN





Those who worked with him will insist that Romain Grosjean had the speed to win races in F1. “On his day, he was as fast as anyone out there – nobody could drive better than him,” says his former engineer Ayao Komatsu, who worked with Grosjean throughout his entire F1 career and helped him achieve his 10 podiums. “But it’s just that not every day was his day.”

Many people probably won’t remember his career for those

podiums – they were all achieved, as he puts it, in the “pre-*Drive to Survive* era”. For many ‘new’ F1 fans, he’s the guy who became a figure of fun after his opening-lap spin in Spain in 2017, or, most likely, the one who had *that* crash in Bahrain in 2020.

So the idea of talking to *GP Racing* about the other, pre-Netflix, part of his F1 journey is something he’s enthusiastic about as we sit down at the back of the Haas hospitality – with the blessing of Romain’s former boss Guenther Steiner – in the São Paulo Grand Prix paddock, where he’s working as a sort of colleague of ours in a role as a commentator for French broadcaster Canal+.

GP Racing: Romain, there’s a video on YouTube which has about 2,500 views where you tell a story about meeting Flavio Briatore in a wet racesuit. Maybe it’s time to share it with a wider audience...

Romain Grosjean: Ha ha! Are we sure about that? It was a bit embarrassing... It was Silverstone, 2008, GP2 race two, a very wet race. And it was one of the five times, I think, in my whole career where I had no choice but to release the pressure from my bladder during the race. And then I was called into Flavio’s office right after it finished... Luckily it rained a lot that day. So I don’t think he noticed!

GPR: How was it for you to work with Flavio?

RG: It was always good. He was very nice to me. I didn’t get the chance to do much with him in F1. I knew him mostly from my junior career and he’s a character for sure. But when I came to F1 in 2009, it was three races – and that was it.

GPR: This was the fall-out from ‘Crash-gate’ [Briatore received a ‘lifetime’ ban from motor racing when his role in fixing the 2008 Singapore GP result was revealed]. What do you remember from that time?

RG: I don’t think I realised the impact it would have on my career. Maybe at that time it would have been better for me to be more open and understand more about what was going on, instead of just trying to go racing and be as fast as I could.



Grosjean returns, briefly, to his old team Haas for his *GP Racing* chat in Brazil

It was all a bit chaotic. I remember a conversation at the end of 2009 where I was told I would be in the car in 2010. And, well, that never happened. There were a lot of moving parts at the time. They lost the leadership, some new people came in but they didn’t know what to do and they were selling the team at the same time.

It was a bit of unfortunate timing. But then, of course, I came back to race in GT and later got the chance to meet Jean-Paul Driot from DAMS, got back into single-seaters with them and had another go. He paid for my GP2 season and then I signed with Gravity, which was the management company of Gérard López and Eric Boullier. They ran the Renault/Lotus team, whatever it was called at the time. And that’s how I came back to F1.

It’s often said speed isn’t the most important (and certainly not the only) thing you need to succeed in F1. Grosjean is an example of that. In effectively his rookie year in F1 in 2012, he finished on the podium three times. But it was also a year in which his image was irreparably damaged. Grosjean had a number of opening-lap incidents but, even if the majority of them were either trivial or no-fault on his part, the image of a “first-lap nutcase” (in the words of Mark Webber) stuck. Two accidents inked this impression: the unforgettable one at Spa, where a few centimetres of misjudgement led to a massive crash involving two championship contenders and a one-race ban; and a clash at Suzuka with Webber, who coined the aforementioned sobriquet.

GPR: Was 2012 the best season you ever raced in?

RG: Ha! I think 2013 was even better. But yes, in 2012 we had seven winners in the first seven races.



With Briatore in 2009 when Grosjean was given his F1 chance, albeit for only a handful of races

day? Because just before Vettel retired, he passed you.

RG: Sure. We had the pace. But yes, Sebastian had a Renault engine and I had a Renault engine. His alternator failed and my alternator failed. So if it wasn't for Sebastian's problem, he would have won. And if I hadn't had this problem, I would have won as well.

GPR: Do you think it would have changed things for you?

RG: You become a race winner. I think that changes a lot.

THAT'S WHERE I FEEL LIKE MAYBE I NEEDED A LITTLE BIT OF SUPPORT TO REALISE HOW BIG A DEAL IT WAS TO BE ON THE PODIUM

GPR: And you almost won the eighth one.

RG: For me, it was all almost too fast. Race four in Bahrain – I'm on the podium. Race five [Spain] – I get the fastest lap. Race six, Monaco, I qualify fourth. Race seven, Canada, I finish second. Race eight [Europe], I'm fighting for victory! And then it went a bit sideways.

GPR: What did the podium in Bahrain do for your confidence? You made up three places on the first lap and finished behind Sebastian Vettel and Kimi Räikkönen.

RG: I was disappointed! Because I thought I should have been second. I messed up my tyre choice and then Kimi managed to beat me. So it was a bit bittersweet.

And that's where I feel like maybe I needed a little bit of support to realise how big a deal it was to be on the podium in race four. I needed someone to explain to me that I should be happy and build my confidence instead of thinking, "Oh, I could have done better."

GPR: Then Valencia – and that start was almost even better...

RG: I actually had a bad start, but I managed to brake really late into Turn 1 and got myself into P3. And then... I saw the video on YouTube the other day: Ayao says to me: "Now try to stay with Hamilton" and as soon as he says it, I pass him! I wasn't even planning to pass him in that corner, but our tyre deg was so good that I still had a lot of grip – I just braked at my normal point and went around him on the outside. And then the car stopped.

GPR: Did you have the speed to beat Fernando Alonso that

After two years racing in GP2, Grosjean returned to F1 with Lotus for 2012, scoring the first of three podiums in Bahrain

GPR: Instead it went the other way.

RG: There was a bit of bad luck. And there was also a bit of me making mistakes. But then I was murdered by the stewards after Spa. There were at least two other occasions where the same thing happened and no one got a race ban. It was just a bit too much.

GPR: If it was Artificial Intelligence doing the stewards' job that weekend....

RG: I don't know. I really don't know. I accepted the penalty, but I disagree with it. Did I deserve something? Yes, for sure. But they were looking at the consequences rather than the action itself. And then you get into this spiral where, you ▶





know... It's just hard to stop a shitstorm.

GPR: They were probably influenced by the noise about some of the other first-lap incidents that you were involved in.

RG: Yeah, but there weren't that many...

GPR: There were a few, but you never got a penalty. Not even in Monaco, after a clash with Michael Schumacher...

RG: Monaco was nothing. Honestly, it was just Michael trying to get somewhere where there was no space, between my car and the barrier. And that barrier isn't straight, it comes back. Where was I supposed to go? The only thing I did wrong was that I didn't open the throttle enough and didn't blow the engine.

GPR: Do you think you should have been a bit more of a bully back then? A bit like Max for example. He crashed into

the back of your car in Monaco in 2015...

RG: And I got shit for it!

GPR: Because he said that you brake-tested him.

RG: Which wasn't true!

GPR: Exactly. But do you think that's the kind of approach that can actually help?

RG: I don't know. Maybe. But anyway, I never thought about it. Because it's not me. So I wouldn't do it even if I thought it was the way to go. I'm not perfect. And there are things I would have changed in the beginning, for sure. Then you get a different path and the outcome can be different too. But it is what it is. I probably also lacked self-confidence, which made me more vulnerable to attacks. Now I don't give a damn. And life is easier that way.



THE LONG INTERVIEW



ROMAIN GROSJEAN

HONESTLY, IT WAS JUST MICHAEL TRYING TO GET SOMEWHERE WHERE THERE WAS NO SPACE, BETWEEN MY CAR AND THE BARRIER. WHERE WAS I SUPPOSED TO GO?

The results of Verstappen's shunt at Monaco in 2015 (below) after Grosjean was accused of brake-testing him. Grosjean admits he couldn't have been that sort of driver, even if it had been the best way to go

GPR: Mark Webber's "first-lap nutcase" stamp has completely overshadowed everything you've achieved that year...

RG: Well, in Japan I fucked up. I was so focused on not letting Kobayashi pass me that I almost forgot about Mark in front of me. Was it worth all the bullshit I got for it? I'm not sure. But it was my mistake. And I apologised. Yeah, it was just... At that point I had no support. From anywhere. It was really, really hard.

GPR: You say that you lacked self-confidence. How important is that in this sport?

RG: Very important. But it's very hard, especially when you go up against the best of the best. You see a lot of tennis players who are really good, but when they play [Novak] Djokovic or [Roger] Federer or [Rafa] Nadal, they're nowhere. It's because they're playing the guys who have been at the top for the last 20 years. And it's just in their heads. There's a lot of that in racing, for sure.

GPR: Can you work on that?

RG: Yes. It takes a lot of effort. It's like... a lot of bricks, like a pyramid, you have to put the first brick and then the second row and so on.

But then it's super easy to get it destroyed. And then you have to start all over again. I mean Checo Pérez is a good example this year. He started the year really well. And then Miami happened. It's funny because after Miami I said on TV it could be the turning point for Checo. And it turned out that it was.

GPR: Do you think you lost some good results in 2013 because you were extra cautious?

RG: No, we had a fucking KERS mapping issue. If it hadn't been for that, I think I would have been vice-world champion that year.

GPR: Were you at your best then?

RG: Yes, and in 2015 as well. ▶





WE HAD BAILIFFS IN THE GARAGE. THEY WERE LOCKING UP OUR TRUCKS AND EVERYTHING...

GPR: The 2014 season was hopeless with the twin-nose car, wasn't it? The car wasn't ready for the first test in Jerez, then you had the least number of laps in Bahrain...

RG: I've a funny story about that because I was reminded of it recently. When I had my first test with Lamborghini in endurance, someone from the team said to me: "I hope you won't say you have a puncture on the first lap!" And that's from back in 2014.

When I took the car out for the first lap and I got to the fast section before the last sector – I came on the radio and said "puncture, puncture". The car felt so bad, I thought I had a puncture. And the team came back to me and said, "Everything looks fine to us". Pastor Maldonado was my team-mate, so told the story to the Lamborghini guys – and we had a laugh about it!

GPR: The podium in Spa in 2015 is considered by many to be your best race ever. The team was almost bankrupt at the time, right?



His podium at Spa in 2015 (below), his last in F1, is regarded as his best. With a Lotus team that was broke, he recovered from a grid penalty to finish third

RG: Oh yes. We had bailiffs in the garage. They were locking up our trucks and everything... I remember one of the engineers – he cycled to the track every morning – arguing with them: "No, the bike is mine! It doesn't belong to the team." So he was allowed to go in and get his bike... Yeah, it was pretty special. But I knew from FP3 that we had a chance because the pace was good. But I also had a gearbox penalty. Because we didn't have the money, we didn't have a Friday gearbox, and I broke the race gearbox on Friday – so I qualified fourth but had to start ninth. I remember talking to a French journalist on the grid and he said, "Oh, what a shame, on a day when you're actually fast, you get this penalty." I replied, "Well, actually it's better to get a penalty when we're fast, so we can come back." And we ended up in P3!

GPR: How bad was it that year?

RG: Oh yeah, it was really bad. Here in Brazil I got kicked out of my hotel room because the team hadn't paid for it. I ended up getting it back around midnight... I was like, "Guys, my stuff is in there!" Then in Japan we had no hospitality because the team hadn't paid for that either. Luckily Renault offered me lunch... But it was also one of the best times!

GPR: How come?

RG: Because we all stuck together, as a group. And it was... yeah, it was cool.

"Time's up, buddy, I was told 15 minutes," Guenther Steiner comes out of his office with a big grin on his face. "We have ▶





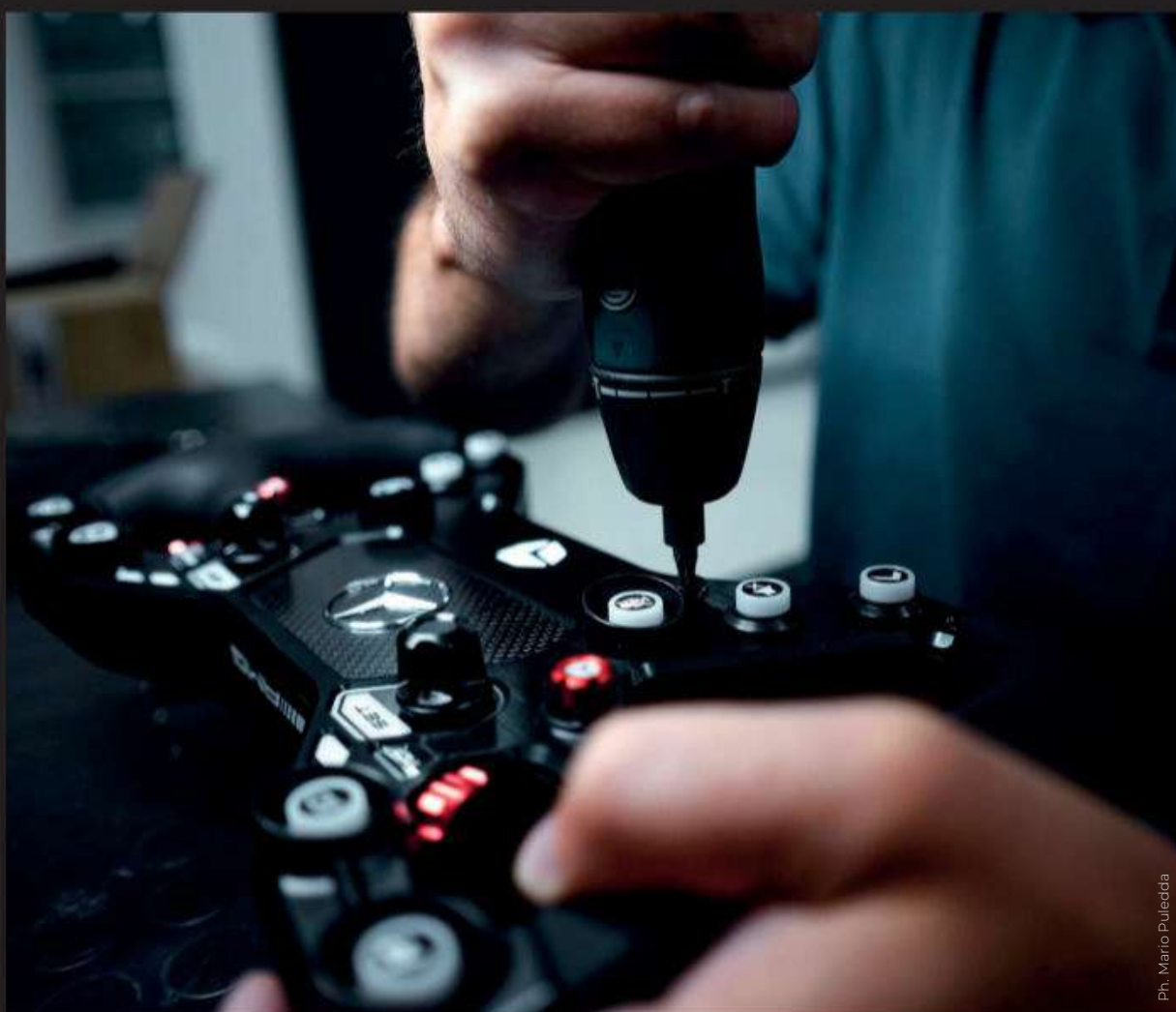
MAKE IT REAL



Ph. Mario Puledda

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Ph. Mario Puledda



ROMAIN GROSJEAN

room for guests,” Romain smiles and his former boss lands on the seat next to him. “How’s the interview going?” he asks us, and we suggest it could always be better. “Just tell him he’s an asshole,” laughs Steiner. “At least I’m not a redneck,” Grosjean parries, and the friendly banter segues seamlessly into a conversation about his new hobby – aeroplanes. It took Romain 21 hours to get from Miami, where he’s now based, to São Paulo – with several stops along the way – in his light plane.

When we politely point out to Guenther that he probably has a job to do elsewhere, he leaves after chivvying us to chat about Haas.

GPR: People like Ayao, who have been with Haas from the very beginning, say that P6 in Melbourne in 2016 saved the team – because the build-up was so difficult that if it hadn’t been for that result, a lot of people would have left. Were you ever more proud of yourself, scoring in the first race for this team?

RG: Yeah, I mean, for the guys it was a lot harder than for the

Romain’s sixth in Australia in 2016 (right), Haas’s first race, did a lot to settle the team. into F1 after a fraught build-up



RG: Good. I mean, some days it’s a bit painful, the left one. But I would say 95% of the time I don’t even think about it.

GPR: Are you still keen to test with Mercedes? Toto Wolff promised you one but, as we understand it, you’re making it difficult for them to organise it.

RG: Yes, absolutely. We haven’t found the time yet – and yes, it’s all my fault. It’s not easy though – I’m looking at 30 race

“**THIS TEAM IS VERY SPECIAL TO ME. THEY’RE REAL RACERS. WITH GUENTHER, WE HAD OUR DISAGREEMENTS, BUT WE ALSO HAD A LOT OF FUN. HAAS IS DEFINITELY THE PLACE I FEEL MOST AT HOME**”

drivers. They did an incredible job. For sure it was a challenge. But it was worth it. And the whole beginning was pretty great. In Melbourne we were lucky, but Bahrain was more of a real performance. It was one of those races where you don’t really understand what’s happening and why, so you just take it.

This team is very special to me. They’re real racers. OK, I’m biased because Ayao came with me and a lot of other people. It was all new and we had to build it together. And I still have a very good relationship with everybody here. Like, you see, with Guenther. We had our disagreements, but we also had a lot of fun. And coming back to the paddock, Haas is definitely the place I feel most at home.

GPR: How are your hands?

The interview was gatecrashed by Haas team principal Steiner (above). Grosjean still has a special place in his heart for the team...

weekends next year. You guys complain about 24 in F1 and I have 18 in IndyCar, seven in endurance and five in F1 with Canal+. So it’s not easy to add a test. But also, very selfishly, I’m trying to delay it to get to the point where I can actually test a new generation of cars. But yeah, I’m still keen to do it and whenever I see Toto he always confirms that it’s going to happen. Yes, it would be very cool to get back in an F1 car.



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GIVE ME THE STEERING WHEEL!

Mercedes reserve and simulator driver **Mick Schumacher** details the many functions of the racer's most important tool

INTERVIEW OLEG KARPOV

PICTURE MERCEDES

"Modern F1 steering wheels are a reflection of how complex and sophisticated modern F1 cars are – to drive such a car you need a steering wheel with endless buttons and switches. And you're using them all the time. In the course of a lap, you typically make five or six adjustments on top of the usual 50-70 upshifts and downshifts."

1

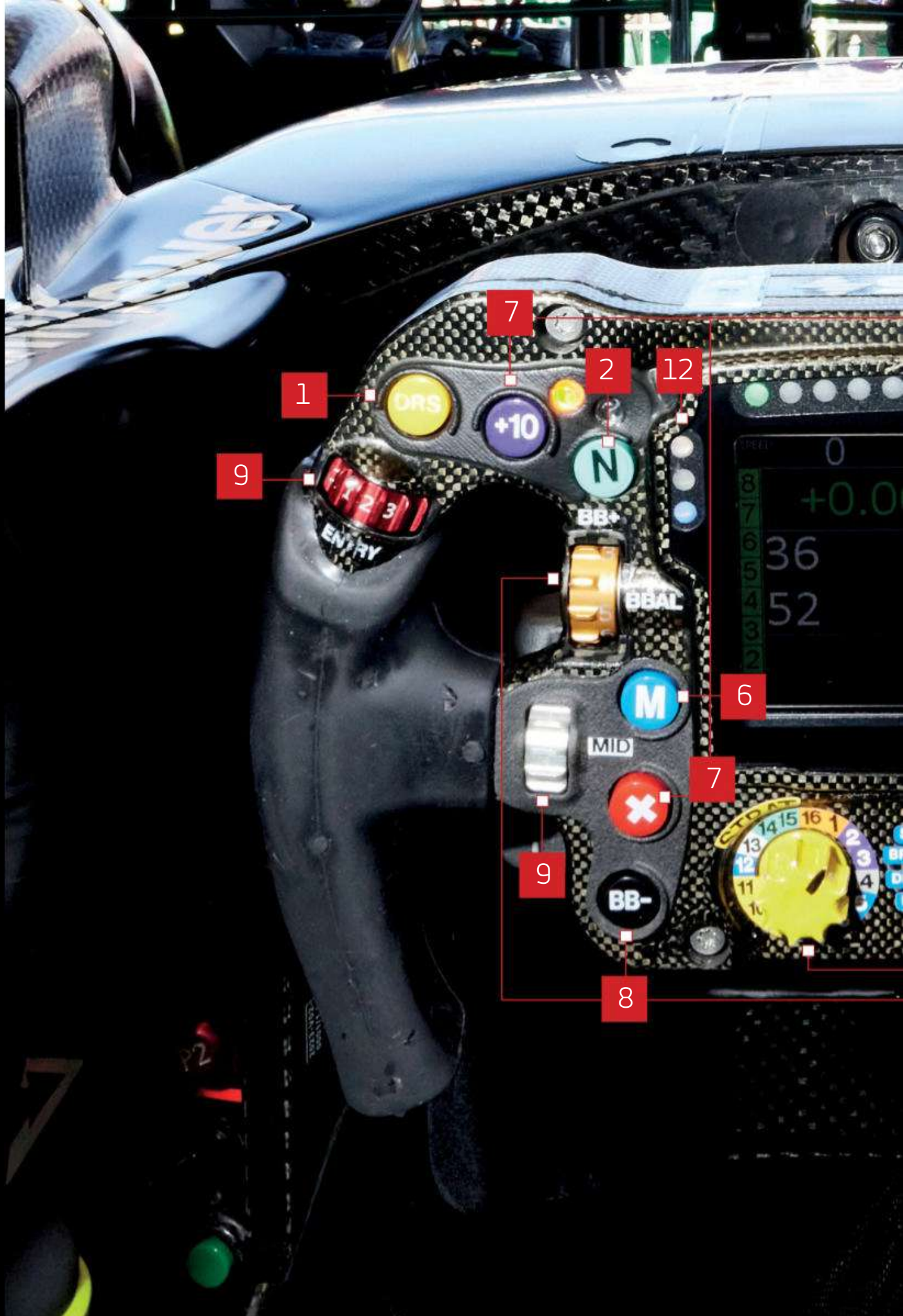
"Some of the buttons are self-explanatory, so let's start with those. On the far left is a yellow DRS button, which opens the rear wing, reducing drag and allowing the car to go faster on the straight, which is particularly useful if you're trying to overtake another car."

2

"Not far away, there's an 'N' button for neutral – and if you press and hold it, you'll also go into reverse."

3

"The white button with the word 'TALK' on it is the radio. You only need to press it once to start talking, unlike the lower categories where you have to press and hold to talk."



4

"There's also a button called 'MARK'. It's used whenever there's a certain point, let's say, that you want to discuss later. If you feel something in a particular corner, or if the car does something you want to talk to your engineers about, you press this button and the system remembers it, so you can come back to it the next time you have a briefing or just a chat with your engineer."

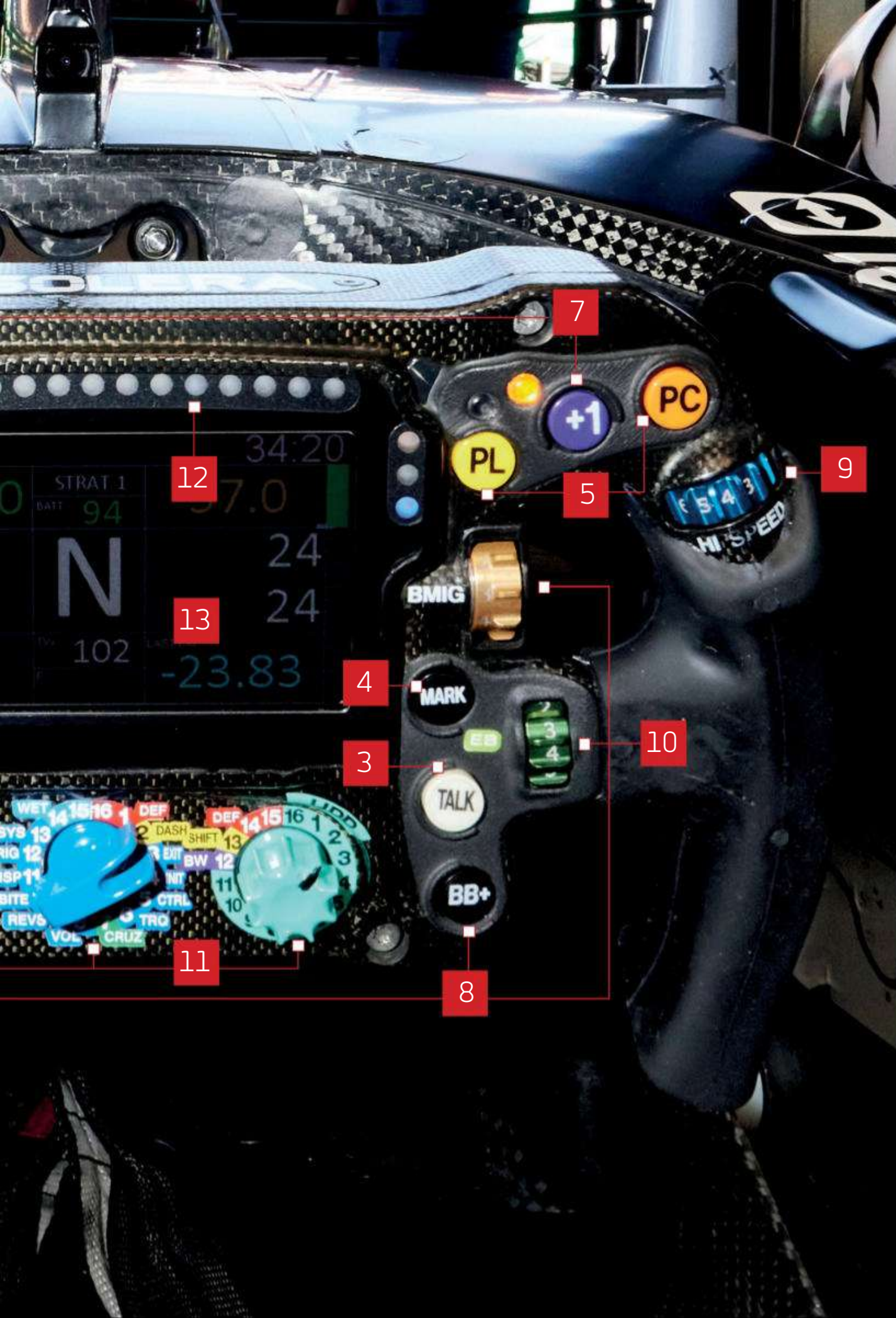
5

"In the top right-hand corner, there are two buttons marked 'PL' and 'PC', which stand for 'Pit limiter' and 'Pit confirm'. The first is easy to understand: it activates the speed limiter when you enter the

pitlane and doesn't allow you to drive any faster. And 'PC' is just an extra way of telling the team that you're entering the pitlane. So, for example, if you're asked to come in for a pitstop, pressing this button simply confirms that you've received the message and are on your way!"

6

"The blue 'M' button is for 'magic'... but it's not what you think! It's basically an extra button, and you can set it to do any quick change you want – so if there's a particular setup for all the differential settings and you want to activate it all at once, you can program it."



7

"The '+10' and '+1' buttons are used for some default modes, which are sometimes used to fix certain problems on the car. There are different modes for different scenarios, so if you need to use, say, '42', you would press the '+10' button four times and the '+1' button twice – and then, to confirm, you would press the red button with the white cross."

8

"Two black buttons at the bottom, 'BB+' and 'BB-', are for changing the brake balance, moving it forwards and backwards. There's also a gold 'BBAL' rotary switch, which basically does the same thing

but faster – and you can also use it to make smaller changes, like half a percent. 'BMIG' on the other side is for 'brake migration', which adjusts how the brake-by-wire system works, shifting the brake balance during the braking phase."

9

"There are three rotary switches for differential settings. The red one on the left is for corner entry, the silver one with the 'mid' sign next to it is for the middle part of the corner, and the blue one on the right is for high-speed corners."

10

"The green switch marked 'EB' is for engine braking

mode, which affects how the car stops without brake or throttle applied – it's a very short phase, but crucial for tyre usage. If it's too high you'll get less understeer, but more tyre deg."

11

"There's a set of three rotary switches at the bottom. Those on the two sides are mainly used for power unit settings. The one on the right is used to control energy management or MGU-K settings and things like that. Most of the time, the driver would touch it after being instructed to do so by the engineer. The left one is for different engine modes. The more aggressive qualifying ones allow you to use the full battery charge for one lap to get maximum performance. Of course, drivers love them the most. The switch in the middle is multi-functional, allowing you to change a whole range of car settings, down to things like dash brightness and radio volume."

12

"There are also different sets of lights. The ones on the top of the dash are for engine revs. You don't really need them these days because you have a beep in your ear that signals when it's time to upshift. They don't have that in F2, so when you get to F1 it's like heaven – you don't even have to think about it, it's like instinct. You hear the beep, you upshift! But the lights are still there – just as a backup, I guess. Then you have three lights on both sides, and these are marshal lights, duplicating the flag signals: blue, yellow and red."

"There are also a couple of extra lights on either side, but these can be set to suit the driver's preferences. They can indicate whatever you want: things like whether the pit limiter is on or not, whether the 'magic' is on or not, and so on. Mercedes are very good at customising the dash and lights for each driver."

13

"Finally, the dash is like your home screen. It shows any changes you make and alerts you to any problems. When driving, you can also see the most important information. There's the gear in the middle, which is currently neutral, tyre temperatures on both sides, battery mode, the percentage of battery charge left at the top in the middle, your brake balance status and also the lap time delta to your previous best, and a few other parameters."



WHAT HAPPENS IN

VEGAS

Formula 1's return to Sin City was a bit of a bumpy ride for some travellers – Motorsport Images photographer **Andy Hone** had the view from the ground (and a fair way up as well)

WORDS AND PICTURES ANDY HONE

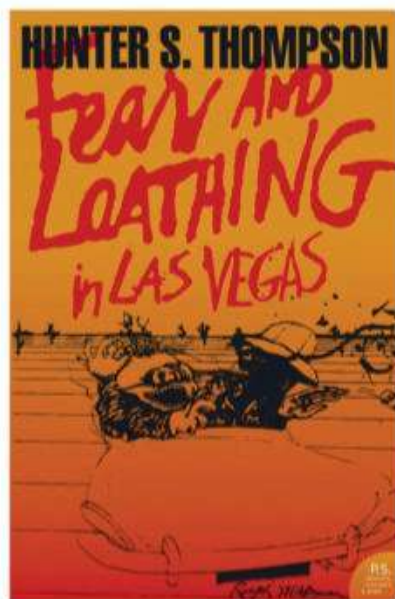


*We were
somewhere
around
Barstow on
the edge of the
desert when the
drugs began to
take hold... And
suddenly there
was a terrible
roar all around
us and the sky
was full of what
looked like
huge bats, all
swooping and
screeching and
diving around
the car, which
was going a
hundred miles
an hour with
the top down to
Las Vegas...*

AS OUR FLIGHT BANKED around the neon-speckled sprawl of Sin City I wondered once again if I was the only person arriving for the Las Vegas Grand Prix having not read (or pretended to read for social media grandstanding purposes) Hunter S Thompson's 'classic' gonzo novel *Fear And Loathing In Las Vegas*. I gather it concerns the author following a commission from *Sports Illustrated* magazine to cover the annual Mint 400 off-road motor race, but then blowing out the job in a blizzard of narcotics and booze. Apparently it's "a savage dissection of the American dream".

Well if there was anyone skiving in favour of "heinous chemicals" and mescal this weekend then I didn't see it, although a handful of journos dutifully followed in Thompson's wheeltracks by driving from Los Angeles... not that a tatty rental Chevy Spark would hit 100mph of course. And at least one of them got stuck in a random 5am traffic jam in the desert on the way back to LA, hardly the stuff of which great gonzo reportage is made.

Perhaps I was less excited than some because I'd been to Vegas before. But there were still a number of firsts here for me.



I've never photographed a wedding before, certainly not one officiated by an Elvis impersonator. Just how did this happen? Maybe the fragile grasp on sanity had broken after all...

When you de-plane at Harry Reid Airport the first thing that strikes you through the glass, apart from the usual accusing stares of the people waiting to get on, is the number of slot machines. From the moment you arrive until your final departure, Las Vegas is a precisely tooled machine for continuously lifting money from your wallet.

One more thing: the carpets. Wherever you may roam it's either a collection of wacko patterns or a writhing mess of coiled lines, like a giant-scale game of snakes and ladders without the ladders. Is the intention to get you wired and a little bit dizzy, losing all sense of time and space – especially inside the windowless casinos

where the lighting is set to a perpetual midday?

There was a lot of cynicism ahead of the event, plenty of people working in Formula 1 quietly expressing low expectations – in a low-profile way, of course, because financially there was a lot riding on its success. Max Verstappen probably ▶





THE CARPETS: WHEREVER YOU MAY ROAM IT'S EITHER A COLLECTION OF WACKO PATTERNS OR A WRITHING MESS OF COILED LINES, LIKE A GIANT-SCALE GAME OF SNAKES AND LADDERS WITHOUT THE LADDERS





best expressed the tension between positivity and negativity. He alternately loved and hated the Vegas experience, as if he had a roulette wheel in his brain. Clack! Ball lands in the black. The track's rubbish and soulless, the so-called fans are only interested in getting loaded and neither know nor care about F1, everything's fake and plastic, I can't wait to go home. Clack! Ball lands on red. Whoopee! I'm gonna wear that Elvis-style racesuit and sing *Viva Las Vegas* when I win.

Las Vegas is a land of make-believe. I have to say it repels me – it's really not my kind of place, I prefer cities that have grown in a kind of organic way, developing their own distinctive character. Plus I don't gamble and I don't party. I came here in 2012 on a road trip to Austin, we had four days allocated for it and after one I thought, "I don't need another three days here."

For me, Vegas is a city trying to be everything for everyone, a sort of Disneyland for adult entertainment. There's even a shooting range near the circuit where you can discharge anything up to semi-automatic assault weaponry.

Speaking of which, since the mass shooting at a music festival in 2017, when a guy opened fire on the crowd from his 32nd-floor suite in the Mandalay Bay, the hotels now conduct random searches of guest rooms. One of the *Autosport* journalists and at least two F1 drivers found the 'Do Not Disturb' door hangers aren't a binding instruction here. Imagine being Charles Leclerc, roused in the small hours to find a burly security guard at the end of your bed demanding to toss your room for concealed firearms...

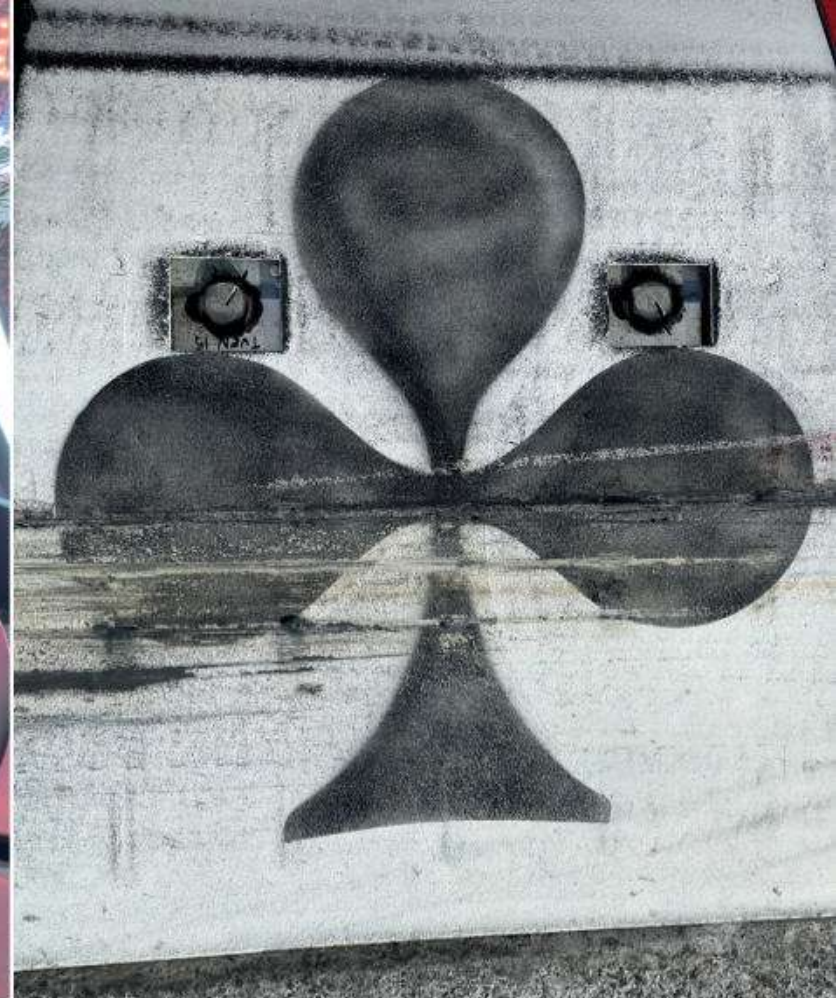
★★★★ FERRARIS, RACING AND RACKETEERING ★★★★★

Las Vegas does have a quirky history and a longer association with cars and motor racing than you might think. Forget the two ratty grands prix around a car park in the early 1980s. Casino pioneer Bill Harrah was a famous car collector and favoured customer of Ferrari, though not so much that Enzo would grant his wish of building him a four-wheel drive car.

Harrah ended up building his own, getting his people to graft the front of a 365 GT onto the body of a Jeep Wagoneer.

The Mint 400 off-road race that takes no more than a page in Thompson's book – after watching the start they retire to the bar and see no more of it – began as a publicity stunt for the Mint Hotel and its annual deer hunters' contest in 1967. Two glass-bodies dune buggies set off to establish a record for off-road travel, heading from Las Vegas to Lake Tahoe (another famous gambling den) and one of them became the winning deer hunter's prize. The following year the idea transformed into what became the Mint 400, a Baja-style off-road race through the desert. Nothing might have come of it but for the early involvement of famous US racer Parnelli Jones, soon to become a short-lived F1 constructor. Once he entered, practically everyone else followed. The action might have taken place in the desert but the pageantry focused in downtown with a parade down Fremont Street ahead of the start and a





presentation for the winners at the end.

Fremont Street, considered the second most 'historic' road in Las Vegas and home to the famous Golden Nugget casino, was a staple of Vegas iconography until the mega-casinos grew up on the Strip to the south. Appropriately enough, the area is home to the National Museum of Organized Crime And Law Enforcement, aka The Mob Museum. Sin City's development is shot through with the influence of organised crime syndicates and their high-profile buddies, including Frank Sinatra. The 1947 murder of Bugsy Siegel – builder of The Flamingo, Las Vegas's first 'resort' casino – is one of the true-crime genre's great unsolved mysteries. The Flamingo became the template for the glittering one-stop gambling shops that line the strip today. But, while the likes of the MGM Grand, Wynn's, The Mirage and New York New York are squeaky-clean, tax-paying businesses, the first flush of resort casinos were built on foundations of hot money from organised crime and the notoriously corrupt teamsters union.

Vegas began to clean up through the 1960s and the man largely credited with this is reclusive billionaire Howard Hughes. This wasn't quite the Hughes as portrayed by Leonardo di Caprio in the movie *The Aviator*. No, this was where the character arc went after the credits on Scorsese's film have rolled, Hughes on life's great off-ramp, frail and morphine-addicted. Flush with cash after selling his stock in Trans World Airlines for \$500m, Hughes effectively fled California to avoid paying higher-rate income taxes on the windfall. He was a fittingly bizarre individual for the Vegas scene, renting the entire top two floors of the Desert Inn and reputedly arriving incognito – in a private ambulance – at midnight one day in November 1966, along with a vast stock of Kleenex and tinfoil.

Legend has it the famously germphobic Hughes wore the tissue boxes on his feet instead of shoes, would only defecate into jars and bottles because he thought the sewage system fed directly into the drinking water supply, covered the windows of his penthouse with

tinfoil, and didn't set foot outside the Desert Inn for the entire four years of his residency. He'd originally booked for 10 days. When management demanded he check out, Hughes bought the entire place for \$13.2m and went on a buying spree with the rest of the TWA swag, snapping up dozens of other casinos and the local TV station, the latter so he could dictate what late-night films it showed. He also bought local politicians and tried to influence policy, demanding rock festivals and Communist entertainers be outlawed and the tax on petrol repealed.

The Mint 400 only happened because Hughes let the organisers use his land. And the Desert Inn had another connection with local motor racing because the former owner, Cleveland Syndicate racketeer and bootlegger Moe Dalitz, also built Stardust International Raceway. In its heyday the likes of Bruce McLaren, Denny Hulme, John Surtees and Jackie Stewart did CanAm races here. The prize money was exceptional. So too, apparently, was the profit from the skimming and money laundering which ►



went on behind the track’s public façade.
It would have been interesting to visit the site – but what was once an otherwise barren location outside city limits is now a housing estate.

★★★★ NOT GOING OUT ★★★★★

The Las Vegas Grand Prix will probably take a while to mature into a stalwart of the calendar like Singapore has. Well, it’s got a 10-year contract. There are those who say Las Vegas is the new Monaco – perhaps it’s closer to the mark to say it’s the new Singapore. That very much feels like a grand prix while you’re there, rather than a race tacked on to a big marketing bonanza. There’s an atmosphere to it. Here it felt like we were sneaking out to use the streets in the small hours when it wouldn’t be a bother to the majority of the casino customers. Perhaps it was the absence of support events that contributed to it not really feeling like a grand prix ‘event’. On Saturday I popped out to Walgreens on the Strip for supplies and the whole area – footpaths and the roads – was rammed with people and cars just five hours before the race. It was as if our event occupied some parallel dimension.

In Singapore the race was disruptive at first – I remember the taxi drivers complaining about it constantly – but everyone got used to it. And in terms of business it grew in stature, like Monaco rather than a potential replacement for it, a place where the great and the good came together to do the deals for the next season.

We ended up not going out much because the track hours were so antisocial. I knew a lot of people eager to ‘do’ the Strip. There are so many shiny, glittery things competing for your attention: the fountains outside the Bellagio, the rollercoaster on top of New York New York, the fake gondolas and canals inside the Venetian, the half-scale Eiffel Tower with one leg sticking through the roof of the Paris. And of course the Sphere, the 18,600-capacity entertainment venue featuring the world’s largest wraparound LED screen. It was designed by Populous, the company which oversaw Silverstone’s 2011 reboot. U2’s 36-show residency was ‘on pause’ through the grand prix weekend – like quite a lot of the musical entertainment – but the LED screens on the so-called ‘exosphere’ were deployed to glam up the trackside view during track sessions.

All of this was going on while a lot of Las Vegas residents were asleep, of course, hence we didn’t get very far. On the Thursday, for instance, when the problem with the drain covers delayed practice, we didn’t finish work until very late...



With no support races and the Strip still open as normal five hours before track action, there was feeling that the grand prix was fitting around the usual business of Vegas

trudging back in to our hotel-casino at 5am we naturally just hit the bar, where we stayed until 10am. I hate seeing daylight while on the sauce... We didn’t even go out for dinner most days – typically we ate at the track and then came back for half-price Modelos at the bar. Quite fun in itself but not quite the absurd excess portrayed in *Fear And Loathing In Las Vegas*. I suppose it’s a natural side-effect of this

being a bizarre environment: we’re here to work while the vast majority of people coming through the doors are here to play.

★★★★ PUTTING ON THE GLITZ ★★★★★

You might think this would be an easy race to shoot, given the photogenic Las Vegas built environment. But actually it was a huge challenge because from ground level you can’t see any of that. So from the minute we hit the ground the chase was on to find places where we could get an elevated perspective, looking down on the cars and the wider surroundings.
It was unusually dog-eat-dog. We always share the breaks we get, for instance the helicopter in Melbourne, and reciprocal arrangements form. But here some agencies weren’t willing to share and I won’t be forgetting that... What the organisers should do is follow the example of Jeddah and Baku – they’ve identified places around the track, usually hotel

rooms or offices, which show off the best of the circuit and you just put your name down for them at a particular time.
Learning where you wanted to go was one problem to solve, another was how to get there. Again, this is something that will develop in future editions of this race as we get used to the infrastructure. In Monaco you soon learn what escalators to take, what lift to get in, and so on, to get to where you need to go. It becomes second nature.
Understandably there was a lot of emphasis on how it looked on TV and for trackside spectators – and the occupants of the crazily expensive hospitality suites. Here there was no mistaking where you were: Donny Osmond performing the ▶



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The rumoured Vegas wedding, in the new chapel in the paddock, was for the 1997 world champion Jacques Villeneuve and partner Giulia Marra

national anthem was as kitsch but compelling as you'd expect. I thought he was dead! The opening ceremony, where the drivers sort of popped up out of these elevated platforms, waved to the crowd and then disappeared back down again, wasn't to the taste of all of them (Max, again, complained of feeling like a clown before Red Bull told him to shush). Kylie Minogue was up there for longer than Lewis Hamilton. But it was entirely in keeping with a city where stage magicians Siegfried and Roy successfully plied their trade with a variety of big cats for the best part of 35 years.

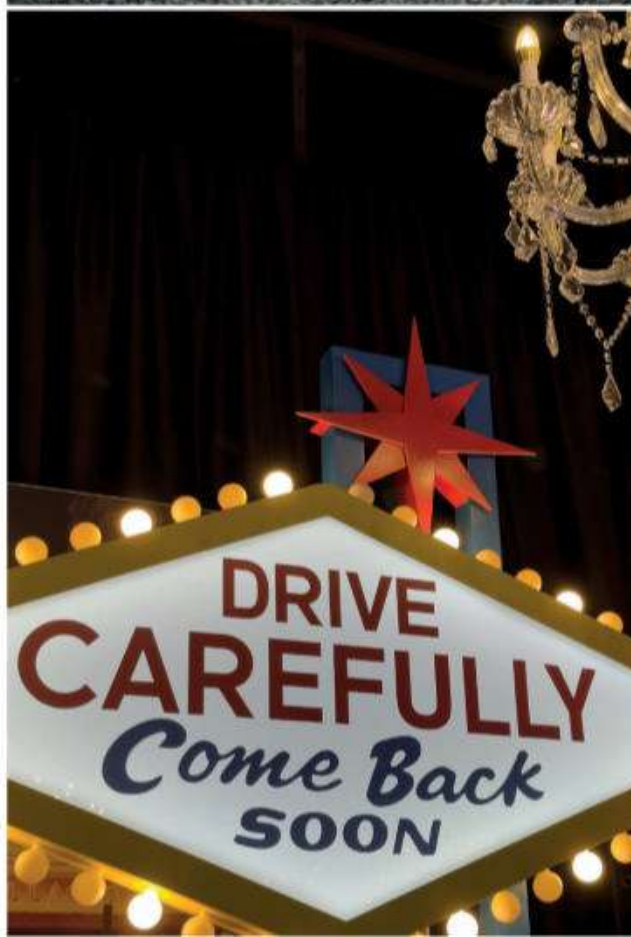
Then of course I shot my first-ever wedding. On the Saturday morning there was a guy going round the paddock saying, "Someone's going to get married in the chapel." No mention of who it might be but the idea of seeing one of these freakshows with an Elvis impersonator seemed irresistible.

So I got there and it was Jacques Villeneuve. His fiancée was there with the television cameras rolling, saying, "I planned all this – surprise!" Jacques took it very well. Jock Clear, his race engineer at Williams and BAR, was his best man. And if Jacques wants a copy of the pictures we can negotiate a fee. Slightly disappointingly, the Elvis impersonator didn't perform the ceremonials 'in character'.


There's quite a lot for the promoters and



It's fair to say that the on-track action got off to a bad start due to the failed manhole covers and the subsequent delay. But Formula 1 is into Vegas for the long term and will be returning



Formula 1 to digest after this inaugural Las Vegas Grand Prix. It's probably unfair to judge the event based on this first visit. It will get easier to move around as we and the organisers learn to optimise arrangements. People will venture out, take in some of the sights elsewhere on the Strip. Dare I say there will be less negativity. The scene with fans being kicked out on Thursday night and given merch tokens in lieu of refunds wasn't a good look. Neither was the obviously undersold hospitality capacity. All of these fed in to the too-cool-for-school crowd instigating a pile-on because they'd been waiting for an excuse to knock the event.

One thing's for sure: Formula 1 has skin in the game and is committed for 10 years. Love it or hate it, you won't be able to ignore it. Bring your own giant bats... 

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LISTA



MARIO ISOLA

Pirelli's motorsport director explains the constant game of catch-up with car development and how he plans to combat the problem of the tyres overheating

At the start of the season you had to adjust the construction because car performance over the winter had exceeded expectations. Has the direction of development panned out as you expected since then?

Yes. The decision to homologate a new construction was the right one. In Melbourne we realised the downforce levels were what they estimated for the end of the season. We were already developing the new material with the idea to introduce it in the no-blanket tyre [a ban on tyre blankets had been due to be introduced in 2024]. So we knew it was more resilient without changing the behaviour of the tyre in terms of balance and other parameters which are important for the teams. We didn't change the profile, which is a very sensitive element for the aero package. That was the challenge at the beginning of the season. The teams tested it, the feedback was in line with our expectations, and since then we haven't been obliged to raise the minimum pressures to a level that's very high.

Qatar was probably your next big challenge.

There's always the possibility to have something unpredictable, like the situation with the kerbs there. It's important to find the right solution in a quick way and in this case, working with all the stakeholders and communicating properly, we found a solution and had a good race.

In the last few races of the season, the issue of overheating has cropped up a few times...

We're analysing the data in more detail. We need to understand why because the compounds are more or less the same as we introduced in 2022 for the 18-inch wheel. And at the beginning of that year there were no comments about overheating – indeed, it was the opposite.

The drivers said they could push more, they could follow each other, they could overtake. That was the right direction. Now we're a bit more back – but not where we were with the 13-inch wheels. We just need to understand how much is coming from the car, through aero development, and how much is coming from the tyres. Now it's been decided to keep the tyre blankets we can change our approach and work to develop compounds for 2025 with a higher working range to protect against overheating.

What was the motivation for dropping the hardest of the tyre compounds – which you didn't use this year?

We decided to homologate the Co just as a backup. We developed a new C1 for 2022 and, although we tested it at different circuits, we didn't gather as much data through that as we would have through a season. The Co was working, in some circuits better but in some it was sliding a little bit. In general the delta in laptime between the C2 and the Co was a bit too much. So we decided to have a compound somewhere in the middle. The C1 has been used many times and is working well, so that's why we've decided to abandon the Co. The reason for having it was that we can homologate as many tyres as we want – one year we had eight. But if you want to

introduce a new one during the season you need agreement from 80% of the teams, and the FIA and so on. We didn't manufacture any Co tyres, it was just on paper.

The F1 Commission has decided to drop the alternative tyre allocation for qualifying [where every driver had to use hard-compound tyres in Q1, mediums in Q2 and softs in Q3, enabling the total number of tyres brought to each weekend to be reduced]. What's your opinion on that?

I believe we've lost an opportunity. We've worked a lot together with the teams' sporting directors and the FIA and F1 to find a way to reduce the number of tyres without affecting the strategy or the show, and without reducing the mileage on track during free practice.

We tested the alternative tyre allocation in two events and, while it's true that in one of these we had a wet free practice [so fewer dry-weather tyres were used anyway], it was quite good – the qualifying with hard-medium-soft was exciting. For me, looking at it as a spectator, we had a very good qualifying. So the decision to drop this format, for me, was not the right one. I believe that if the direction for the future is to reduce the championship's carbon footprint, we have to accept to lose something.

How might the proposal to reduce wheel size from 2026 affect performance, besides the target of reducing car weight?

It depends what level of performance they want to achieve. There are some ideas on the table. Clearly if you reduce the wheel size, you put more energy through the tyre and you generate more heat. So I foresee, for instance, the carcass working at a higher temperature – as it was in 2016 when we last had narrower tyres.

CLEARLY IF YOU REDUCE THE WHEEL SIZE, YOU PUT MORE ENERGY THROUGH THE TYRE AND YOU GENERATE MORE HEAT

BRABHAM



BT44

NOW
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No124
WORDS
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Gordon Murray's innovative
trapezoidal calling card



One of Formula 1's great technical-commercial partnerships came about almost entirely by accident. It nearly didn't happen at all. In December 1969, the early phases of a winter so bitter it would go down as the stormiest on record until 2014, 23-year-old engineer and sometime racing driver Gordon Murray arrived in England from his native South Africa in the hope of getting a job with Colin Chapman at Lotus.

Imagine, in hindsight, what a combination that might have been. But the stars were destined not to align. Murray had exchanged letters with Chapman and caught a bus to Lotus's Hethel HQ expecting to be interviewed by Lotus Cars chief engineer Brian Luff. Instead he discovered that not only had he arrived into a protracted bout of inclement weather, an economic downturn had gripped the car market. Lotus wasn't hiring – quite the opposite.

Murray spent the following months scraping by, living in an unheated bedsit in a hangdog London suburb, continuing the job hunt. Acting on a tip, he doorstepped the Brabham F1 factory – where co-owner Ron Tauranac happened to be



waiting to interview someone for a design role. Believing Murray to be that someone, Ron grilled the young engineer and was impressed enough to offer Gordon a job on the spot.

As Murray knuckled down to an apprenticeship drafting suspension components to Tauranac's exacting standards, he exercised his creativity by sketching his own 750 Formula car in his spare time. Change was blowing through the company as Jack Brabham embarked on his long-planned retirement from racing and return to Australia, selling his share of the team to Tauranac – who found the administrative grind too great, the business of sponsor-wrangling not to his taste. By May 1971 Ron had agreed a sale to Jochen Rindt's former manager. Like Murray, this man



BRABHAM BT44

NOW
THAT
WAS
A
CAR

No124



was destined to turn the sport on its head with his energy and inventiveness, albeit in the commercial rather than engineering sphere. His name was Bernard Charles Ecclestone.

Tauranac remained as an employee, but he and Ecclestone were cut from the same my-way-or-the-highway cloth. Ron would later recall coming back from a long weekend to find the motorcycle designer and former sidecar racer Colin Seeley, an old acquaintance of Ecclestone, installed at his desk as new managing director. Tauranac asked if he could take a leave of absence over the winter to engineer for Frank Williams in some races in South Africa; as it happened, he would only return to the Brabham factory to hand back his company car.

Ron, famously a man never to use one word when none would have sufficed, was perhaps not the most convivial

MURRAY SPENT THE FOLLOWING MONTHS SCRAPING BY, LIVING IN AN UNHEATED BEDSIT IN A HANGDOG LONDON SUBURB, CONTINUING THE JOB HUNT



of bosses. By the early months of the Ecclestone takeover Murray was ready to move on and entertaining offers of work elsewhere. In later years Bernie would relish telling journalists that Tauranac advised him to fire Murray, so instead Bernie fired everyone else and made Murray his chief designer. Closer to the truth is that Gordon had good offers from the Tecno F1 team and Alain de Cadenet's Le Mans project and had to be talked out of leaving (he would design the sportscar, powered by a Cosworth V8, by night). Ralph Bellamy's departure for



Lotus also left the position of chief designer vacant.

Brabham's 'lobster claw' BT34 and its successor, Bellamy's BT37, had underperformed in 1971 and '72. Instructed to build a "completely new" car for 1973 by Ecclestone, Murray did just that – in four months flat. The BT42 was utterly unlike its predecessors except for the front-mounted radiators: wedgy, short in the wheelbase, with around 30% of the fuel load



located behind the driver rather than on either side of their hips, it was a calling card for an ambitious engineer destined to be viewed as one of F1's great innovators.

The detail engineering was clever, too. Back home in South Africa Murray had built his own racing engine so he was unafraid to tinker with the established Cosworth V8 to suit his car concept, re-casting the valvetrain cover so he could mount the springs and upper suspension links to it; he also redesigned the Hewland gearbox's lubrication system to save power and converted the casing to accept the rest of the suspension links. The tub's triangular profile was not only intrinsically stiff and aerodynamically slippery, it enabled Murray to shape the auxiliary tanks so fuel didn't climb up the sides under g-loadings. Pleasingly, the triangular profile also mirrored the vee-angle of the engine itself, but this was but a consequence of Murray's big-picture idea: shaping the upper surfaces of the car to generate negative pressure underneath, boosting grip.

The BT42 made an inauspicious debut at Brands Hatch for the Race of Champions in March 1973 – a stuck throttle sent John Watson into the barriers hard enough to break both his legs and render the first chassis a write-off. Two new cars were ready for the fourth round of the F1 season – the Spanish Grand Prix at Montjuïc Park in late April, with the still-injured Watson a spectator. Brabham's rising star Carlos Reutemann qualified a modest 15th but had risen to second place and was chasing down race leader Emerson Fittipaldi when a driveshaft joint failed nine laps from the finish.



BRABHAM BT44



NOW THAT WAS A CAR

No124

pic to come

The '73 season, though, belonged to Fittipaldi and Ronnie Peterson in the better-funded, more developed Lotus, and Tyrrell's Jackie Stewart. Reutemann's promise was masked by engine issues or sub-optimal tyre choices; in the other BT42 Emerson's somewhat less rapid older brother Wilson managed just one points finish, in the German GP at the Nürburgring.

Convinced that he was heading in the right direction, Murray evolved the BT42 into the BT44, with a new front-end treatment and rising-rate suspension actuated by pullrods. He had come up with this arrangement for his (unfinished)

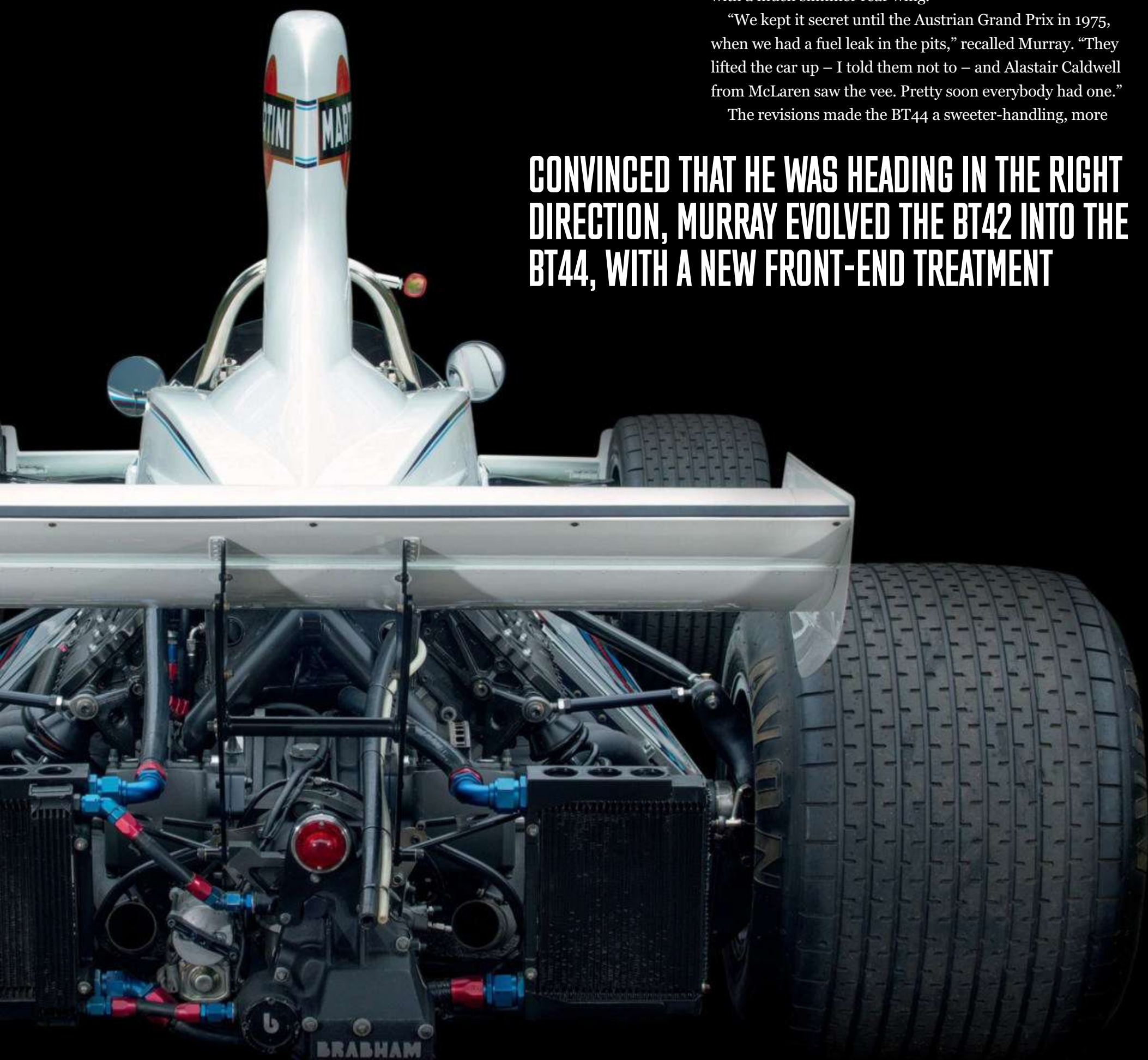
750 Formula car, partly because he disdained the rocker-arm setup used by other rising-rate exponents, but also because he had been striving for a low bodyline in the club racer.

Beneath, an early attempt to harness what would become known as ground-effect aerodynamics: a sacrificial fiberglass 'vee' under the new nose cone, aiming to wash underfloor air outwards and create a partial vacuum behind it. While Lotus's later solution would be more optimal – channeling and accelerating underfloor airflow rather than trying to exclude it – secret testing with an anemometer at Kyalami suggested it worked well enough for Murray to run the car with a much slimmer rear wing.

"We kept it secret until the Austrian Grand Prix in 1975, when we had a fuel leak in the pits," recalled Murray. "They lifted the car up – I told them not to – and Alastair Caldwell from McLaren saw the vee. Pretty soon everybody had one."

The revisions made the BT44 a sweeter-handling, more

CONVINCED THAT HE WAS HEADING IN THE RIGHT DIRECTION, MURRAY EVOLVED THE BT42 INTO THE BT44, WITH A NEW FRONT-END TREATMENT





BRABHAM RECALLED AND STRIPPED THE TWO CHASSIS USED BY HEXAGON AND REBUILT THEM IN MURRAY'S B-SPEC

Opel, then latterly the much more gifted Carlos Pace).

On its grand prix debut at Reutemann's home race in Buenos Aires, the BT44 could have won – Carlos took off into the lead but then spluttered to a halt on the final lap. Somehow the team had missed a fuel churn in the hurly-burly ahead of the race start. In Brazil Reutemann's front-row qualifying position was squandered – and this would be a recurring theme – by soft-compound tyres which faded during the race. Bernie, it's said, liked to insist on soft-compound tyres because he failed to grasp the trade-off between performance and degradation.

For round three, in South Africa, Brabham's pair of BT44s bore Texaco decals. It might have looked like a big-bucks acquisition, compensating for Ecclestone missing out on the deal that took Marlboro to McLaren, but in fact Bernie had lost at cards to a Texaco suit and this was the forfeit. What a

responsive, quicker car than its predecessor but Brabham's 1974 campaign was hindered by some of the same old problems: inconsistency inside and outside the cockpit and a lack of funds made obvious by the team's plain white livery. Bernie, always averse to dipping into his own pockets, persisted with a string of pay-drivers in the second seat (Richard Roberts for a handful of races before handing over to Rikky von

BRABHAM BT44

NOW THAT WAS A CAR

No124

weekend to be unlucky at the table: thanks to a combination of Ferrari's Niki Lauda retiring and Lotus struggling with the new electronic-clutch 76, Reutemann won by over half a minute.

Returning to blank-page white, the BT44s netted just two more victories in 1974, both at fast circuits which demanded agility: the Österreichring and Watkins Glen. Pace, a top-drawer driver available at a bargain rate after falling out with John Surtees mid-season, made it a 1-2 in the USA. John Watson netted two points finishes in his privateer BT44 run by Paul Michaels' Goldie Hexagon Racing outfit.

Over the winter Brabham recalled and stripped the two chassis used by Hexagon and rebuilt them in Murray's B-spec, with a neater, smaller crash structure and nose cone up front, a slightly slimmer cockpit, tidier and more aero-optimal radiator plumbing, and new rear brake ducting. Murray also knocked back a job offer from Colin Chapman, reveling in the creative freedom Ecclestone gave him.

For 1975 Ecclestone landed what is surely one of motor racing's most visually pleasing sponsors: Martini. The blue and red stripes complemented the BT44B's angular lines and the season got off to a competitive but frustrating start as Reutemann again fell short of victory on home ground, this time as terminal understeer set in on the closing laps. Engine failure had caused Pace to spin out of a leading position.

Poor tyre choice – again – meant Reutemann went backwards at Interlagos but Pace went on to record what would be his only F1 victory at the circuit which now bears his name. With the January racing out of the way, the circus reconvened at Kyalami in March. Brabham locked out the front row but Pace was troubled by brake issues and Reutemann couldn't hold off the charging Tyrrell of home hero Jody Scheckter.


Reutemann racked up three more podiums, plus a win at the

Nürburgring. But retirements at Silverstone and Watkins Glen and a poor showing in Austria cost him his shot at the drivers' title, since only the best six results of each half of the season counted. Car development halted mid-season as Ecclestone landed another big commercial fish: Alfa Romeo, ambitious to return to the fray with a flat-12 engine after a 25-year hiatus. Given Ferrari's increasing dominance against a pack largely composed of Cosworth customers the multi-cylinder logic was sound; still, there was no chance of shoeorning the Alfa into the BT44B. New car required.

Neither the overweight and underpowered flat-12 or the V12 which replaced it were especially competitive but



Murray relished the challenge, enjoyed Alfa's "delightfully unstructured" approach, and continued to appreciate Ecclestone's backing such that he continued to turn down offers from Chapman in the years to come.

The BT44s were sold on to the RAM team run by another Ecclestone chum, John Macdonald, where they raced on through 1976 – albeit steered by talents rather less prodigious than Carloses Reutemann and Pace. Brabham cars began to achieve a consistency of results their engineering warranted in the early 1980s, when Murray's still mould-breaking ideas designs were propelled by equally outrageous BMW turbo four-pots rather than temperamental Italian multi-cylinders. 

RACE RECORD

Starts 69

Wins 5

Poles 2

Fastest laps 4

Podiums 9

Championship points 88

SPECIFICATION

Chassis Aluminium monocoque

Suspension Double wishbones with pullrod-actuated, inboard-mounted rising-rate springs/dampers (f); Multi-link with coil-over shock absorbers (r)

Engine Naturally aspirated Cosworth DFV 90-degree V8

Engine capacity 2993cc

Power 460bhp @ 10500 rpm

Gearbox Five-speed Hewland manual

Brakes Steel discs front and rear

Tyres Goodyear

Weight 570kg

Notable drivers Carlos Reutemann, Carlos Pace

XEVI PUJOLAR



10 THINGS I LOVE



Alfa Romeo's racing director on his love of motorbikes and karate... and fear of flying



Motorbikes

My first dream was to work with motorbikes. I even had the idea of racing in the top category with my own bike, but that dream disappeared as I grew up and understood how the world works. I never had the budget to start racing myself, but I've always loved bikes and I still do. Although I have to say I was also fascinated by fast cars. Not F1, but just seeing a Ferrari or a Lamborghini on the road was like a dream for me – and it's still one of my dreams to own one. I probably still have a good few years of working ahead of me, but I keep pushing!



Watches

I don't just like wearing watches. I don't have a collection or anything like that, but I like to study the mechanisms and understand how watchmaking is done with the precision required for such a small and important tool.

Italian cuisine

It's something my colleagues sometimes don't appreciate about me but, wherever we go, I always try to find an Italian restaurant. Even though I'm Spanish, I love Italian food, and even if we were in Japan I'd be looking for a place with pizza, pasta and risotto.



Martial arts

I'm not an active practitioner now, but I did karate for over 15 years since I was a child. At one point I was combining different styles, karate, kung fu and taekwondo, using different techniques and going through quite intense training – not only for my body but also for my mind, to help my self-control.

Flying

I have a fear of flying, so the best way to fight it was to push myself and understand more about it. I did my PPL for a light aircraft to learn about the procedures, the communications, how weather affects the aircraft and all that. Then I got obsessed with documentaries about air crash investigations, which didn't help with the fear, but at least I know about what can go wrong! So during the winter months, when I have some time off, I always check National Geographic to see if there are any new episodes. I don't have time to fly myself these days, but I'd love to get back to it one day.



Architecture

I love architecture. Different designs, styles and so on. When we travel, I often have plans to visit some buildings with extreme designs – airports, hotels, that sort of thing. I have a lot of ideas, and of course I'd like to realise them one day by building something myself. There are only two problems: time and money. There's one thing in particular that fascinates me about architecture: I love skyscrapers. From the list of the world's tallest buildings, the only ones I haven't been to are the Burj Khalifa in Dubai and the 101 in Taipei – but I'm planning to visit both. I'm mainly interested in engineering, understanding how people build something like that is very cool.



Fashion

It's something very important to me. The way you dress is a way of expressing yourself. I used to have my own fashion brand. I tried to design and produce clothes, starting with T-shirts and hoodies. I tried to combine it with my passion for motorsport, so you could see some details of different tracks, different corners in my designs. For someone outside this world it would be invisible, but those who follow F1 might be able to see some patterns from Suzuka, Parabolica and so on. But I just didn't have the time to continue because when I do something I put a lot of effort into it. Besides all the travelling with F1, I went to India, Turkey – to see the materials, the production. I also went to a fashion show in Las Vegas. At the end it was taking up too much time, so when I joined Sauber and got a bigger role with more responsibilities I decided to stop.



Travel

This may come as a surprise, but I like to travel – even if it's for work. In fact, I don't like it that much when we have European races, because the culture is more or less the same. I like to see different cultures, places like Brazil, Mexico and especially Asia. And that's what I have in mind when I travel with the family – I just want to see and learn about different cultures.

Running

I've been running competitively since I was nine years old. And I think I was pretty good. But then I had to decide if I wanted to continue running or study. And I chose the latter, but I always kept running at an amateur level. Then, when I came to F1, I stopped, but I rediscovered it thanks to Covid. I started running again and it's something I really enjoy now. I create challenges for myself, I try to improve, using all the tools available, like Garmin, Strava and all that. I sometimes ask people to film me when I'm on the treadmill so I can analyse what I need to work on to make my body move more efficiently. I even buy sensors for my shoes and study the data. Yet I'm still not as fast as I want to be.



Sharing passions with family

I think family is very important for everyone who works in F1, because we spend so little time at home – so whenever I am, I try to devote all the time I can to my wife and two daughters. And I always try to share my passions with them, from karate to motorsport. It might get very expensive one day, but that's how it is!

SHOWCASE

SOUTH AFRICAN GP

In its early days it blew away the Christmas blues, but recent attempts to revive the race have floundered

▼ *Ronnie Peterson battles with Ferrari's Gilles Villeneuve in the early stages of the 1978 GP. The Lotus would eventually win the race after starting 11th, overtaking the Tyrrell of Patrick Depailler on the last lap*





◀ Drivers relax during the 1967 race weekend, at the famous Kyalami Ranch Hotel, from left to right: Denny Hulme, Jo Bonnier, Graham Hill, Mike Spence, Jim Clark, Jackie Stewart, Jo Siffert and Dan Gurney. It would also be the venue for the annual GPDA annual meeting...

▼ Although Graham Hill (BRM) went into the first South African GP at East London with a nine-point lead over Jim Clark, a Clark win would hand the Lotus driver the title as only the best five results counted. Clark led, but retired, and Hill claimed the win and his first championship



◀ The 1965 race was initially planned as the finale of the 1964 season. When it was rescheduled for a week later it then became the first race of the 1965 season on 1 January. Jim Clark celebrated Hogmanay with an easy victory, 30 seconds clear of Bruce McLaren, and was unaffected by the chequered flag being shown a lap early

▼ Sam Tingle from Rhodesia (now Zimbabwe) emerges unscathed from a huge shunt in the 1967 GP. Many drivers from the region took part in those early GPs in hand-me-down chassis bought from teams, but Tingle used an LDS from a South African constructor





The 1981 South African GP was the race that never was, as the FISA/FOCA dispute over the control of F1 saw the race downgraded to Formula Libre and boycotted by manufacturer teams. All 19 cars were powered by Cosworth engines and Carlos Reutemann won, driving a Williams



Teams experimented with big wings in 1968 and so, with South Africa the first race in 1969 after a five-month off season, it was no surprise the aero aids had grown front and rear. Jochen Rindt's Lotus was a prime example, although their use was severely curtailed after some early season accidents



Alain Prost exits his Renault after winning the 1982 race, having recovered from a puncture just after half-distance. The race, which only went ahead after a drivers' strike was settled, was the last January race. The 1983 South African GP was held in October, before reverting to April for 1984



Multiple bike world champion Mike Hailwood battles with the works McLaren of Denny Hulme in 1974. Hailwood would go on to claim his final F1 podium, a year after pulling Clay Regazzoni from his burning Ferrari in the 1973 race



▲ The 1980 South African GP was the first time an F1 podium was made up by three Frenchmen, winner René Arnoux, Jacques Laffite (left) and Didier Pironi. All three were also driving French-built cars, with Arnoux in a Renault and the other two in Ligiers, and it marked the first time since the 1968 US GP that the podium consisted of drivers from one country

► Gilles Villeneuve leads the 1979 GP only for the race to be red-flagged because of a downpour. Villeneuve, on wets, blasted into the lead again at the restart, pitted for slicks on lap 15, and then retook the lead and win when Ferrari team-mate Jody Scheckter pitted for new tyres





▲ Sauber, the Swiss team that is due to become the Audi works effort in 2026, made its Formula 1 debut at the last South African GP in 1993. With backing from Mercedes-Benz and a V10 Ilmor power unit, the team's first two drivers were JJ Lehto, who finished fifth, and Karl Wendlinger

▼ Niki Lauda (left) and Ricardo Patrese bed down in a large room at the Sunnyside Park Hotel after the drivers went on strike ahead of the 1982 race, in a dispute over superlicences. Lauda reckoned if the drivers went back to their rooms they would cave in, hence the mattresses

▼ Bernie Ecclestone bought Brabham from Ron Tauranac in 1971. The first points for the 'under new management' organisation came the 1972 South African GP, where Graham Hill (pictured relaxing with Ecclestone ahead of the race) finished sixth, albeit a lap down



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▲ Apart from the three GPs at the East London track Kyalami was the race's home until 1985, when F1 caught up with other sports in boycotting South Africa because of the country's racial segregation. The two-post apartheid GPs in 1992 and 1993 were held on a revised circuit

▼ When South Africa did return, albeit briefly, to the F1 calendar, both races were won by Williams. In 1992 Nigel Mansell kicked off his run to the title by heading a 1-2 for the team, while in 1993 the last South African GP was won by Alain Prost, who also went on to be champion

▲ Ayrton Senna was determined to make his F1 debut in 1984 and had been linked to drives at both Lotus and Brabham. In the end he signed for Toleman, which had finished 1983 strongly, and at Kyalami, in what was only his second F1 race, he scored his first point for finishing sixth





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MAURICE HAMILTON'S ALTERNATIVE VIEW

Ferrari's team principal has recently questioned what the Andretti name would bring to Formula 1.

Perhaps he spent a portion of his youth hiding under a rock?



FRÉDÉRIC VASSEUR MIGHT have been just 14 years old but he must have been doing something other than paying attention to the Italian Grand Prix in September 1982. Had he done so, the current Ferrari team principal would have been as astounded as everyone else when Mario Andretti made an F1 comeback at the age of 42, stuck his Ferrari on pole at Monza and finished third.

Andretti's late substitution massively boosted flagging ticket sales in a confusing and catastrophic year that had seen the deaths of Riccardo Paletti and Gilles Villeneuve. When Didier Pironi – the '82 champion apparent – was seriously injured at Hockenheim and Patrick Tambay began struggling with back pain, Ferrari needed another star driver. Cue the call to Nazareth, Pennsylvania and an invitation for Andretti to test the Ferrari 126C2 at Fiorano on the Monday before Monza.

Ferrari team principal Vasseur is not a fan of the proposed entry of the Andretti name to F1



Mario Andretti's temporary return to Ferrari, aged 42, at the 1982 Italian GP was the stuff of fantasy, especially after he unexpectedly qualified the 126C2 on pole

When the Alitalia flight landed in Milan, TV crews and media rushed to the aircraft steps. Andretti, ever the showman, appeared alone, stopped half way down and raised both arms. He was wearing a Ferrari cap. The 500-plus fans looking on went into a frenzy. One Italian journalist, in all seriousness, likened it to the arrival of the Pope.

Andretti booked three of his accompanying American sponsors into the 5-star Principe Savoia in Milan. Politely refusing Fiat's offer of a Fiat, Mario chose to drive an Achille Motors Rolls Royce. It was perfect for making his exit from the circuit after claiming that extraordinary pole and then, would you believe, going out for one more lap, stopping where the crowd was thickest on the run to Parabolica and doing a limiter-banging, tyre-smoking start. The place went mental.

ANDRETTI, EVER THE SHOWMAN, APPEARED ALONE, STOPPED HALF WAY DOWN AND RAISED BOTH ARMS. HE WAS WEARING A FERRARI CAP



BS Fabrications, which Ecclestone said would be building its own cars in 1980, had previously run Nelson Piquet for a handful of races in 1978 in an ex-works McLaren



Lawrence Stroll has proclaimed that 10 operations are enough for F1, but his own Aston team started off as Jordan, which nobody thought fit to reject when it started in 1991

And Fr  d Vasseur recently asked out loud if the Andretti name would bring anything to F1.

Never mind the Cadillac/GM connection, Enzo Ferrari must have been spinning in his grave when the principal spokesperson for Scuderia Ferrari came out with such a crass question. Yes, the proposed Andretti entry has little to do with Mario in the same way today's F1 has zero connection with 1982. But for the teams and FOM to whinge about a new team – particularly this one – on the grounds of financial hardship is a miserable mix of ignorance and greed.

What Michael Andretti needs to do is surreptitiously light a fire under F1's gilded pot and initiate a fight among the key players. There's nothing like a bit of divide and conquer. Going back to 1980, for instance, the battle for control in F1 had two sides. Manufacturers such as Renault

and Alfa Romeo aligned with FISA, the governing body, while the smaller British-based teams stood shoulder-to-shoulder with Bernie Ecclestone under his FOCA (Formula One Constructors' Association) umbrella.

Keen to bolster numbers, Bernie revealed that a new team, BS Fabrications, would be building its own cars and joining FOCA. The small British firm (affectionately known as BS Fabs) had a solid reputation thanks to preparing BMW M1 Procars for F1 support races as well as building the championship-winning F2 Tolemans and assembling the Chapparral that went on to win the Indy 500. Nothing would come of the grand prix project but, at the time, the F1 crisis presented an open invitation for new teams, no matter how seemingly insignificant.

Michael Andretti, if he has any sense of

devilment, will encourage Lawrence Stroll to cosy up to the FIA in the interest of boosting road car sales. At the same time, Mario's eldest could stroke Christian Horner's ego by saying the Red Bull boss, having dominated both championships, is more than capable of owning the entire series, telling Mercedes where to go, and earning himself even more loot and TV interviews. With one side played off against the other, the leading question would be which series Andretti should choose rather being left holding his coat at the door.

There's no chance of that happening any more than a BS Fabs-style operation so much as thinking about F1. But it's worth noting BS Fabs, with an ex-works McLaren M23, entered Nelson Piquet for three GPs in 1978, the novice going on to become a triple world champion. There was never any question about the little company from Luton being prevented from racing; if it could qualify for the 26-car grid, it was in. Which surely highlights the nonsense of exceptional talent such as Oscar Piastri standing idle throughout 2022 because there were no seats of any description.

Stroll has announced that 10 teams are enough. While making his wooden speech to camera outside the new Aston Martin premises, Stroll might have given thought to how his team came about through Eddie Jordan pulling himself by the bootstraps from F3 and F3000. Jordan's entry to F1 in 1991 was never in danger of being rejected. EJ's main obstacle turned out to be Flavio Briatore protecting Benetton's share of Ford sponsorship when he discovered Jordan was doing a deal with Cosworth. At no point did Briatore wring his hands and say this was unfair.

As for James Vowles being against another entry by putting the security of his 750 (!) employees before the actual reason for their commitment and passion; talk about the well-meaning tail wagging the overweight dog. F1 has changed massively since 1970, but it might be timely to repeat Frank Williams's summary of life after the loss of his driver and best mate Piers Courage in a fiery crash at Zandvoort. "We were insolvent," recalled Frank. "All we owned were two engines, a transporter, some minor mechanical items, lots of debt – and no Piers."

F1 is not easy, and never has been. When Ecclestone formed FOCA and initiated its own credential, a drawing on the front showed a castle with its portcullis almost closed. "Represents the motto of FOCA," murmured Bernie. "It's bloody difficult to get in – but not impossible."



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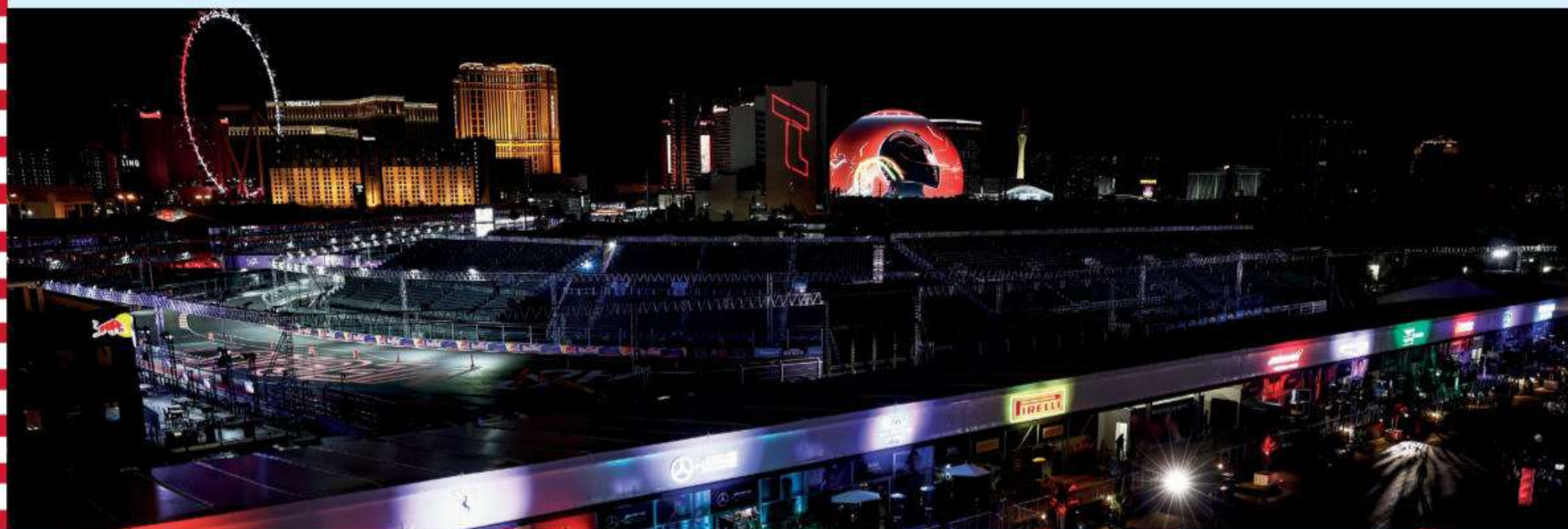


FINISHING STRAIGHT

RACE DEBRIEF

F1 WORLD CHAMPIONSHIP ROUND 22

THE LAS VEGAS GP IN 5 KEY MOMENTS



Las Vegas (top) wasn't to everyone's liking. Verstappen (right) was an early critic but seems to have softened after coming out on top of his battle with Leclerc (below)



PICTURES: ZAK MAUGER; ANDY HONE; SAM BAGNALL; BERNARD FRANK

1 Mixed feelings over Sin City gamble

Did Formula 1's return to the self-proclaimed entertainment capital of the world hit the jackpot? Liberty Media's gamble included a purchase of a piece of land, construction of a £500 million pit and paddock building and a ten-year commitment to race on the Las Vegas Strip. But in the days leading up to the event, it was notable that F1's share price continued to fall. The reboot in the Nevada desert wasn't to everyone's taste — and perhaps the most vocal was race winner Max Verstappen.

He described feeling a "clown" at the welcome party on Wednesday and, when asked whether he liked driving on the long straights and tight corners, he answered with an emphatic "no". Nevertheless he donned Red Bull's Elvis-inspired racesuit on Sunday and, on the slow-down lap after his victory, sang *Viva Las Vegas* with unenforced enthusiasm.

After the first GP held on a Saturday since Kyalami 1985, the consensus was that the on-track race action in this audacious location went some way to ameliorating the event's snag list.

That's partly because Verstappen had to work

for his 18th victory of 2023. Entering the first corner at the start, he didn't quite have the grip to make the turn and ended up running polesitter Charles Leclerc wide. In the spirit of the age, the Ferrari man was on the radio to his pitwall in the hope that race control had seen it. While the stewards were busy dealing with the other incidents that went on behind the front two, they eventually decided the race leader should be given a five-second penalty.

When Max was informed of their decision, he was pulling away from Leclerc in clear air: "Fine... send them my regards," was his dismissive response.

But by lap 16 the gap to Leclerc had diminished and, with the help of DRS, the Ferrari took the lead — just before Max pitted at the end of the lap. For once Ferrari wasn't suffering as much as Red Bull with tyre wear and Leclerc continued for a further five laps out front. Combined with the five extra seconds Max spent in the pits, it meant Charles enjoyed a decent advantage before half-distance.

That lead was eroded when the Safety Car was scrambled on lap 26 for debris, after George Russell

closed the door on Verstappen at Turn 12 as they jostled for fourth. The race neutralisation was key in handing the advantage back to the world champion.

Leclerc decided to not relinquish track position to the Red Bulls and stayed out, while both Verstappen and Sergio Pérez pitted for fresh rubber. In hindsight, Leclerc admitted it would have been better to stop, for he was then helpless to prevent Max's charge to the front. But with a bit of savvy driving, did get the better of Pérez. For the second race in succession Checo lost a place on the final lap; Leclerc timed his move with DRS to perfection.

'Peak end effect' achieved, then, if not in terms of the win. Not that Max felt this was especially significant for those watching.

"A Formula 1 car on a street circuit doesn't really come alive. It's Spa and Monza that are proper race tracks that have emotion and passion," he said. "Fans [in Las Vegas] come to have a party, drink, see a DJ. I can go to Ibiza and get completely shitfaced and have a good time. But they don't understand what we're doing or putting on the line..."

2 Sainz's hopes go down the drain

Regardless of what Max thinks fans want out of a Las Vegas Grand Prix, those attending the F1 show only got eight minutes of action on the opening night as a red flag brought proceedings to a premature halt. Those who had paid for three-day hospitality (tickets in the Bellagio Fountain Club extended to as much as £9,500 each) could be forgiven for feeling short-changed.

It was a misfiring start for the promoter, exacerbated by poor communications with the fans. Single-day ticket holders weren't reimbursed but were presented with a voucher to buy merchandise at the LVGP official store instead.

Into the first minutes of track action, one of the Alpines had dislodged the top of a water drain on the Strip. Fernando Alonso saw the loose lid and managed to swerve around it. Carlos Sainz was less fortunate and the impact did considerable damage to the floor of his Ferrari. The concrete frame around the manhole cover had failed so every single one – reportedly there were 25 on the 1.1-mile Strip – had to be reset with fast-setting cement.

This, though, wasn't fast enough. A collision

ensued between the inevitable delay to an already late schedule (partly dictated by casinos wanting unencumbered daytime access to their properties so punters could enjoy the baccarat and roulette tables) and union regulations which decreed a hard 1.30am finish for the helpful people who tell you when and when not to cross a junction.

This forced the organisers to clear the grandstands so, when an extended 90-minute session finally got under way at 2.30am, the only spectators remaining were insomniac hotel dwellers, teams and media. Not only did the bizarre middle-of-the-night session play havoc with everyone's circadian rhythms, it had uncomfortable parallels with the infamous Indianapolis drama of 2005. This was a critical race in an important market but it wasn't endearing itself to the fans.

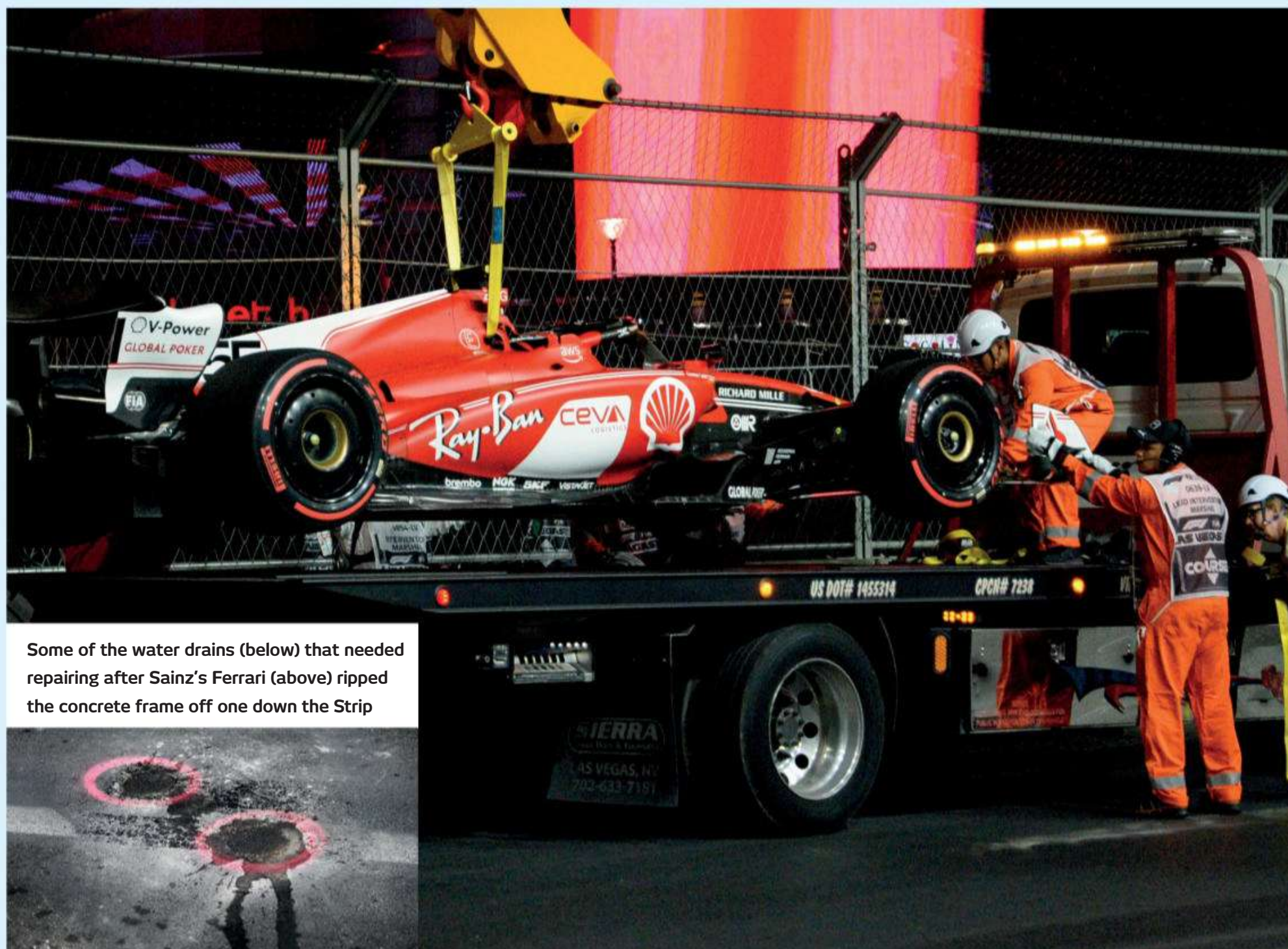
Also angry was Ferrari team boss Frédéric Vasseur, who labelled the whole incident as "unacceptable." He was fuming because Sainz had to take a new engine and was slapped with a ten-place grid penalty as a result. Given the Monza-type demands of this circuit the Ferrari was strong here, so the penalty dealt a significant blow to Sainz's chances of picking up a second win on a street track this year. Then his race was ruined completely when, from 12th, he spun at Turn 1 at the start and hit Lewis Hamilton's Mercedes.

3 The long days are paying off at Enstone

Among the virtues of the Las Vegas track which finally cut through the Thursday/Friday kerfuffle were the ample opportunities for overtaking. These were bolstered by a combination of low tyre degradation, a headwind along the Strip, and the repositioning of the DRS zone 50 metres further back following discussions with the drivers after the opening day of practice. The result was 82 overtakes, the second most of the year (behind the wet-dry-wet-dry mayhem of Zandvoort which had 112 passes at the line).

The characteristics of the track and conditions gave some succour to those with poor grid positions and Esteban Ocon made good progress in one of his best races of the season. After starting 16th, he finished fourth. But it wasn't without a little pass and repass with his team-mate Pierre Gasly on lap 34 which coincided with a radio message to hold position.

Gasly was on older tyres at the time and Ocon later said he didn't clearly hear the instruction. Despite the switch, Ocon admitted his change in fortune was a great contrast to the previous day. ▶



Some of the water drains (below) that needed repairing after Sainz's Ferrari (above) ripped the concrete frame off one down the Strip



FINISHING STRAIGHT

RACE DEBRIEF

F1 WORLD CHAMPIONSHIP ROUND 22



Ocon recovered superbly from a lowly grid spot of 16th to bring his Alpine home fourth, a welcome boost for the French team

"It's crazy emotions as I was probably at the lowest point of the season [after qualifying], I was very, very disappointed," said Ocon.

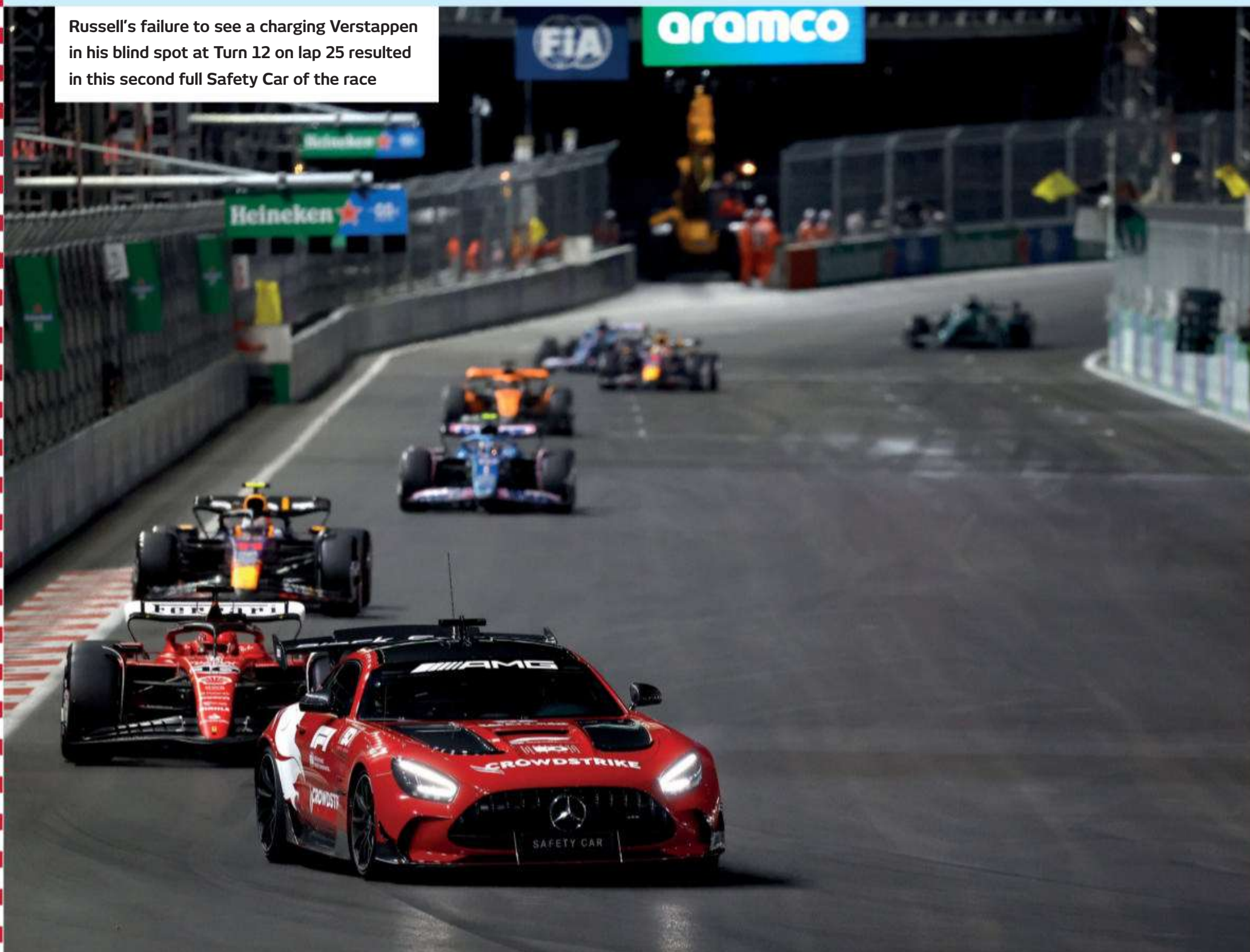
"Since Singapore, we haven't caught much of a break. We've had all sorts of incidents and tricky races but have never stopped believing that we were doing a good job as a team and things were going to come. But it took a while."

One of the differences at Alpine since the summer break has been a focus on improving communication between the intra-team departments. A better working relationship between the track side personnel and the factory staff has been led by the hard-working new boss Bruno Famin, who has reportedly been working all the hours at Enstone.

4 Merc podium goes begging after contact

George Russell believed that a Las Vegas podium was a possibility until he had a coming-together with Max Verstappen at Turn 12 around half-distance. Max was charging through the field after

Russell's failure to see a charging Verstappen in his blind spot at Turn 12 on lap 25 resulted in this second full Safety Car of the race



PICTURES: GLENN DUNBAR, ANDREW FERRARO, JAKE GRANT, FRANÇOIS TREMBLAY



Norris escaped unhurt from his lap 3 shunt, but only after being checked out at both the Medical Centre and local hospital

his five-second penalty and went to the inside of George at Turn 12. Russell didn't see him coming and turned in, resulting in a clash in which the Mercedes came off worst, depositing enough debris to warrant a Safety Car deployment.

The damage wasn't enough to rule Russell out of the race and he was able to work his way forwards, passing Esteban Ocon on the final lap to take fourth place before the line. But he was then demoted to eighth thanks to a five-second time penalty for his tangle with Max.

"I just didn't see him in the blind spot," said Russell. "I wasn't expecting the overtake and I wasn't even really fighting him because we knew Max wasn't in our race. It was a comfortable podium thrown away once again."

Other drivers ruining their Las Vegas race were Aston Martin's Fernando Alonso, who spun at Turn 1 after braking too late on the dirty inside line. The resultant melee impacted both Sergio Pérez (who stopped for hards and ran long in his Red Bull) and Alfa Romeo's Valtteri Bottas.

The Finn was particularly despondent as his excellent seventh place on the starting grid became a lost opportunity to score much-needed points for Alfa. The damage he picked up at the first corner to his floor and diffuser meant he could only manage 17th overall.

5

Fear and Lando in Las Vegas

One of the concerns about racing in the Nevada desert at night was the possibility of close-to-freezing weather. Thankfully ambient temperatures didn't dip below double figures – but it's definitely a concern for future events around this date.

A first-lap Virtual Safety Car for debris at Turn 1 didn't help with regards to building tyre temperature. Lando Norris hit a bump approaching Turn 12 and lost control of his McLaren on lap 3. The impact brought out the Safety Car and Norris was taken to the Medical Centre, followed by a check-up at the University Hospital, after which he was given the all-clear.

It was a double disappointment for the Woking team when team-mate Oscar Piastri was forced to pit with a puncture after contact with Lewis Hamilton on lap 17 – which ruined his charge after starting on the hard tyre. Piastri finished 10th, but with a double points finish for Aston Martin (Lance Stroll benefitted from the Safety Car to take fifth while Alonso was ninth), McLaren's advantage over Aston Martin (in fourth) was cut to 11 points with just Abu Dhabi to go.

RESULTS ROUND 22

LAS VEGAS STRIP CIRCUIT /
18.11.23 / 50 LAPS



1st	Max Verstappen	Red Bull	1h29m08.289s
2nd	Charles Leclerc	Ferrari	+2.070s
3rd	Sergio Pérez	Red Bull	+2.241s
4th	Esteban Ocon	Alpine	+18.665s
5th	Lance Stroll	Aston Martin	+20.067s
6th	Carlos Sainz	Ferrari	+20.834s
7th	Lewis Hamilton	Mercedes	+21.755s
8th	George Russell	Mercedes	+23.091s*
9th	Fernando Alonso	Aston Martin	+25.964s
10th	Oscar Piastri	McLaren	+29.496s
11th	Pierre Gasly	Alpine	+34.270s
12th	Alex Albon	Williams	+43.398s
13th	Kevin Magnussen	Haas	+44.825s
14th	Daniel Ricciardo	AlphaTauri	+48.525s
15th	Zhou Guanyu	Alfa Romeo	+50.162s
16th	Logan Sargeant	Williams	+50.882s
17th	Valtteri Bottas	Alfa Romeo	+85.350s
18th	Yuki Tsunoda	AlphaTauri	+4 laps/power unit
19th	Nico Hülkenberg	Haas	+5 laps/power unit

*includes 5s penalty for causing a collision

Retirements

Lando Norris	McLaren	2 laps/accident
--------------	---------	-----------------

Fastest lap

Oscar Piastri 1m35.490s on lap 47

TYRE COMPOUNDS USED

Hard (C3)Medium (C4)Soft (C5)InterWet

CLIMATE

AIR TEMP

TRACK TEMP

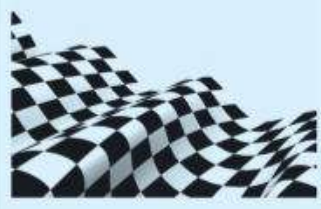
18°C

19°C

DRIVERS' STANDINGS

1 Verstappen	549pts	12 Ocon	58pts
2 Pérez	273pts	13 Albon	27pts
3 Hamilton	232pts	14 Tsunoda	13pts
4 Sainz	200pts	15 Bottas	10pts
5 Alonso	200pts	16 Hülkenberg	9pts
6 Norris	195pts	17 Ricciardo	6pts
7 Leclerc	188pts	18 Guanyu	6pts
8 Russell	160pts	19 Magnussen	3pts
9 Piastri	89pts	20 Lawson	2pts
10 Stroll	73pts	21 Sargeant	1pt
11 Gasly	62pts	22 De Vries	0pts





FINISHING STRAIGHT

RACE DEBRIEF

F1 WORLD CHAMPIONSHIP ROUND 23

THE ABU DHABI GP IN 5 KEY MOMENTS

1 Whatever he might say, Max pays attention to his stats

Three laps from the end of the Abu Dhabi Grand Prix, Max Verstappen achieved a remarkable statistic: he led his 1,000th lap in a single season. To put that into context, only 18 other drivers in the history of the FIA Formula 1 world championship have led that many laps in their entire career. Seasoned veterans such as David Coulthard (897) and Rubens Barrichello (854), never reached that milestone, despite the 568 F1 starts and 24 wins between them.

Verstappen closed out the season in the same sweep of ruthless dominance with which he began the year. Under the floodlights of Yas Marina his 19th win (and 21st podium) of 2023 set a new record, in addition to his points total of 575 – and his winning margin of 290 over his team-mate.

His avoidance (or survival) of on-track incidents, combined with the remarkable reliability of his Red Bull, is worth a mention too: he completed every single racing lap this year (1,325) which has only

happened twice before (Michael Schumacher in 2002 and Lewis Hamilton in 2019).

When Max brought the all conquering RB19 to a smoky halt following a series of celebratory donuts on the start/finish straight after the race, he admitted he felt rather emotional. “It’ll be very hard to have another season like this,” said the three-time champion.

Arguably the greatest F1 car ever built is now consigned to Red Bull’s museum. An engineering masterpiece falls silent as the Milton Keynes factory ramps up production on its successor.

For a brief moment it looked as if Max had a challenger in Abu Dhabi. Starting on the front row Charles Leclerc got the nose of his Ferrari alongside the Red Bull on the run to the Turn 6/7 chicane on the opening lap. But as usual Max was just tyre-whispering to bank an advantage at the end of his stint. In short order he sprinted clear of the DRS activation range and, like so many times in 2023,

he left the opposition fighting among themselves. Untroubled up front, he made his 54th win look easy, beating the Ferrari by nearly 18 seconds after 58 laps which were worry-free but for a downshift issue cured by a settings change.

For all the praise Red Bull deserves for the RB19, it’s important to value the extra edge Verstappen imbues and his ruthless determination to succeed at all costs. In contrast, his Red Bull team-mate Sergio Pérez couldn’t produce the same level of performance in Abu Dhabi and managed to throw away second place in an avoidable clash with Lando Norris at the chicane on lap 47. It was characteristic of his season.

The move wasn’t particularly reckless, just clumsy. Norris, as he later confirmed, had already yielded the corner and left plenty of room, only for Checo to steam in hot and barge him off the track. Pérez was given a five-second time penalty and had some pointed things to say about the FIA

Verstappen performs the obligatory end-of-season champion donuts. It’s been a record-breaking year for both the Dutchman and the Red Bull Racing team



Pérez chases Norris for fourth. His penalty for the overtake would push him off the podium



It looked as though Leclerc had got the better of Verstappen at the start, but it was not to be

PICTURES: ZAK MAUGER; JAMES SUTTON; ANDY HONE; STEVE ETHERINGTON

stewards on his cool-down lap, calling them “a joke.” He was summoned to see them afterwards and subsequently apologised.

During the race there was another radio message that caught everyone’s attention when Verstappen said Pérez could have priority during the pitstop. Maybe this was a thoughtful gesture?

“No, it was to try and lead for 1,000 laps in the season, as I knew that was on the cards,” said the man who says he doesn’t pay attention to records or compare himself with other drivers.

“I just wanted to make sure they wouldn’t pit me too early... I can’t just come into a weekend not giving it all. I do think that is just how I grew up. My mindset didn’t change after winning the championship, I come to the race weekend to do the best I can. You always want to do better and we are working hard for next year to have a very competitive car again. All the other teams out there want to try and beat us next year and we are ready for the battle.”

2 Constructors’ title runners-up take centre stage

With Verstappen out front, once again the interest lay in the contest behind him. In Abu Dhabi it was the closely fought duel for second place in the constructors’ championship. Heading to the final round, Mercedes held a slim four-point advantage over Ferrari. Over the course of the 58 laps the two teams swapped positions in the ‘live’ table as they battled for the best-of-the-rest spot.

In the red corner Charles Leclerc continued with his strong finish to the year, claiming his fifth consecutive front-row start – which he converted to second in the race. Where Ferrari’s challenge came unglued was the performance of the second car as Carlos Sainz suffered a miserable weekend. Sainz crashed out of FP2 after losing control of his SF-23 on a Turn 2 bump (which was attended to overnight by the circuit). He was eliminated in Q1 and started 16th, blaming other drivers for deliberately slowing to create ‘dirty air’ which spoiled his flying lap. One of three drivers to start on hard tyres, the strategy was to run long in a one-stop race but running in traffic caused him to slide a lot, damaging the tyres and forcing an early stop.

Converting to a two-stop at this stage left him needing a Safety Car which never came.

Meanwhile, George Russell was leading the charge for Mercedes. After a scrappy season, the British driver picked up only his second podium of the year in Abu Dhabi.

Pérez passed Russell late on but was carrying a five-second penalty for his clash with Norris. Sensing the need to bag as many points as possible, Leclerc decided to try and influence the result – slowing to allow Pérez past, knowing he would reclaim second once Sergio’s penalty was applied. If Charles could help the Red Bull finish



Abu Dhabi was only Russell’s second podium of the season (top) where Mercedes clinched second in the constructors’ race (above)

more than five seconds ahead of Russell, Ferrari would claim second in the standings unless Lewis Hamilton could make up a place in the final laps.

While F1 and the Abu Dhabi promoters were delighted by at least having some intrigue in this race, a furore over race manipulation was probably not their desired outcome. Russell ensured this didn’t happen by finishing within 3.5s of Pérez at the flag. His third place (and Hamilton’s ninth) gave Mercedes the margin it needed to secure the runners-up spot by a mere three points.

3 Two legends try to out-fox each other

Given the 12-hour time shift from Las Vegas to the Middle East, plus the rigours of travel, many people in the paddock were struggling with jet lag and ague. At the end of a long and tiring season, Red Bull team boss Christian Horner joked he hoped Lemsip was outside the budget cap. ▶



FINISHING STRAIGHT

RACE DEBRIEF

F1 WORLD CHAMPIONSHIP ROUND 23



Yuki Tsunoda created his own little bit of history in Abu Dhabi when he became only the second Japanese driver to lead a GP

But the fight for the final places in the standings meant no one could ease into the winter break early. One particular battle of note was between two of F1's most experienced campaigners.

When Fernando Alonso emerged from the pits on lap 37, he looked right to see Lewis Hamilton fractionally behind. Before the braking point for Turn 5, Alonso eased off and moved to the side. The FIA noted he was driving "erratically" while Hamilton described his actions as a "brake test."

In reality, Alonso had slowed just before the DRS activation point, hoping that Hamilton would shoot past – giving Alonso DRS on the next straight.

"Lewis is very clever and understands the sport really well," said Alonso. "He has a lot of experience but I have more. We did the same in Canada in 2012, but in both cases, I won, so it is okay."

Alonso finished in seventh, two places ahead of Hamilton, enough to give him fourth overall – tied with Leclerc on 206 – and one point ahead of Norris.

4 Japan's driver of the day

F1's fan-voted 'Driver of the Day' award is usually more of a popularity contest than indicator of merit but few would criticise the outcome in Abu Dhabi. Yuki Tsunoda got the nod and he'd been flying all weekend. He achieved his highest ever qualifying position – sixth – and just needed to finish in that position to help AlphaTauri overhaul Williams for seventh in the constructors' race. It was all out-going team principal Franz Tost could think about on his farewell weekend with the team.

Tsunoda was placed on a one-stop strategy and ran long into the race. On lap 18 he inherited the lead and spent five laps at the head of the field, initially unsure of his position. With that he became only the second Japanese driver to lead a GP,

following Takuma Sato's two laps in the lead of the 2004 European GP at the Nürburgring.

Sadly, Tsunoda's lap times withered over the final laps as his tyres ran low on grip. "At some point I thought we could finish potentially in the top six, but it just didn't work out," said Yuki, who was wearing a special helmet design featuring his team boss. "We don't have regrets that we stayed out and tried to go one-stop. At least I gave it [my] all."

It was a nervous final race on the Williams pitwall but, in the final reckoning, the Grove-based team finished three points ahead of AlphaTauri. Williams' scoring came from a strong season for Alex Albon (27 points) while Logan Sargeant struggled with just one point. But, while Sargeant is yet to be confirmed for 2024, he ended 2023 with a decent team-player performance: his strategy was compromised to put him in position to hold up the second AlphaTauri of Daniel Ricciardo – which he accomplished, helping to leave Daniel outside the points.

Old foes Alonso and Hamilton were at it again. Alonso's efforts to get DRS by slowing weren't to Hamilton's liking



PICTURES: ZAK MAUGER; JAKE GRANT; ANDY HONE; MARK SUTTON; SIMON GALLOWAY



For once Albon didn't finish in the points (right) but he single-handedly took Williams to seventh in the constructors' championship

5 A legend of the sport bows out

Alfa Romeo might have won the very first round of the F1 World Championship at Silverstone in 1950 and clinched the first two titles with Giuseppe Farina and Juan Manuel Fangio but, since those early days, success at the top level has been in short supply for the legendary marque.

While it's best to skip over Alfa's ill-fated F1 stint in the early 1980s, the company's final race in its current guise – title sponsor of Sauber's team – was equally unspectacular.

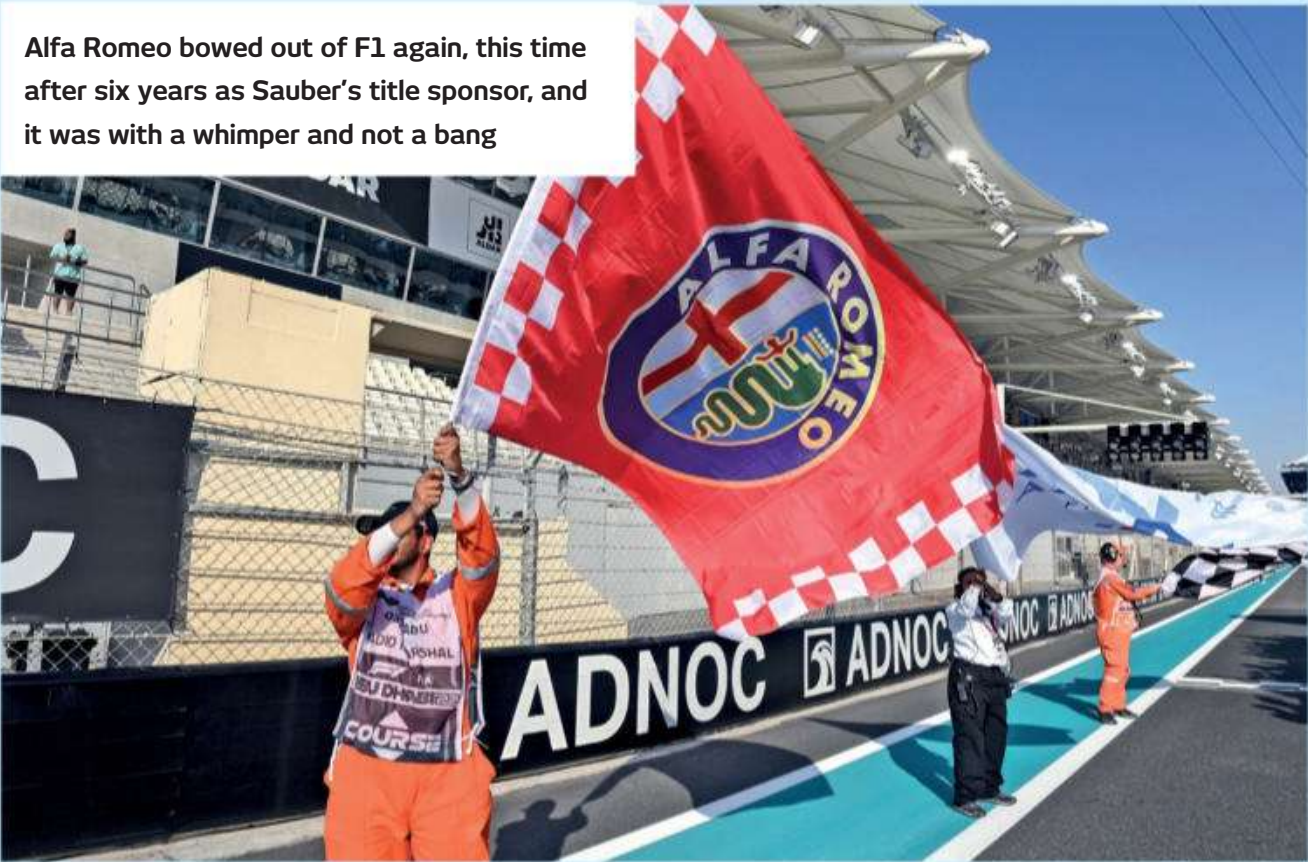
Zhou Guanyu and Valtteri Bottas finished 17th

and 19th respectively in Abu Dhabi, bringing the six-year partnership with Sauber to an end. It was almost as if the Italian manufacturer had already given up.

The lack of fanfare was exemplified by the team still running its Las Vegas playing-card livery... no time or energy seemed to have gone into marking the great name of Alfa Romeo disappearing from the sport. Sauber will continue in the interim (for the next two seasons) ahead of Audi's big takeover for the start of 2026.

"Tonight's race reflected our season in full: in the end, the constructors' championship position corresponds to the pace we were able to show," said team representative Alessandro Alunni Bravi. In other words, just off last place.

Alfa Romeo bowed out of F1 again, this time after six years as Sauber's title sponsor, and it was with a whimper and not a bang



RESULTS ROUND 23

YAS MARINA CIRCUIT /
25.11.23 / 58 LAPS



1st	Max Verstappen	Red Bull	1h27m02.624s
2nd	Charles Leclerc	Ferrari	+17.993s
3rd	George Russell	Mercedes	+20.325s
4th	Sergio Pérez	Red Bull	+21.453s*
5th	Lando Norris	McLaren	+24.284s
6th	Oscar Piastri	McLaren	+31.487s
7th	Fernando Alonso	Aston Martin	+39.512s
8th	Yuki Tsunoda	AlphaTauri	+43.088s
9th	Lewis Hamilton	Mercedes	+44.424s
10th	Lance Stroll	Aston Martin	+55.632s
11th	Daniel Ricciardo	AlphaTauri	+56.229s
12th	Esteban Ocon	Alpine	+66.373s
13th	Pierre Gasly	Alpine	+70.360s
14th	Alex Albon	Williams	+73.184s
15th	Nico Hülkenberg	Haas	+83.696t
16th	Logan Sargeant	Williams	+87.791s
17th	Zhou Guanyu	Alfa Romeo	+89.422s
18th	Carlos Sainz	Ferrari	+1 lap/car retired
19th	Valtteri Bottas	Alfa Romeo	+1 lap
20th	Kevin Magnussen	Haas	+1 lap

*includes 5s penalty for causing a collision

Retirements

Fastest lap

Max Verstappen 1m26.993s on lap 45

TYRE COMPOUNDS USED



CLIMATE



AIR TEMP

28°C

TRACK TEMP

33°C

DRIVERS' STANDINGS

1 Verstappen	575pts	12 Ocon	58pts
2 Pérez	285pts	13 Albon	27pts
3 Hamilton	234pts	14 Tsunoda	17pts
4 Alonso	206pts	15 Bottas	10pts
5 Leclerc	206pts	16 Hülkenberg	9pts
6 Norris	205pts	17 Ricciardo	6pts
7 Sainz	200pts	18 Guanyu	6pts
8 Russell	175pts	19 Magnussen	3pts
9 Piastri	97pts	20 Lawson	2pts
10 Stroll	74pts	21 Sargeant	1pt
11 Gasly	62pts	22 De Vries	0pts





F1 UPGRADES

Enhance the F1 experience with the latest must-have products

MONGRIP MZ96 MICHAEL SCHUMACHER LEGEND LIMITED EDITION

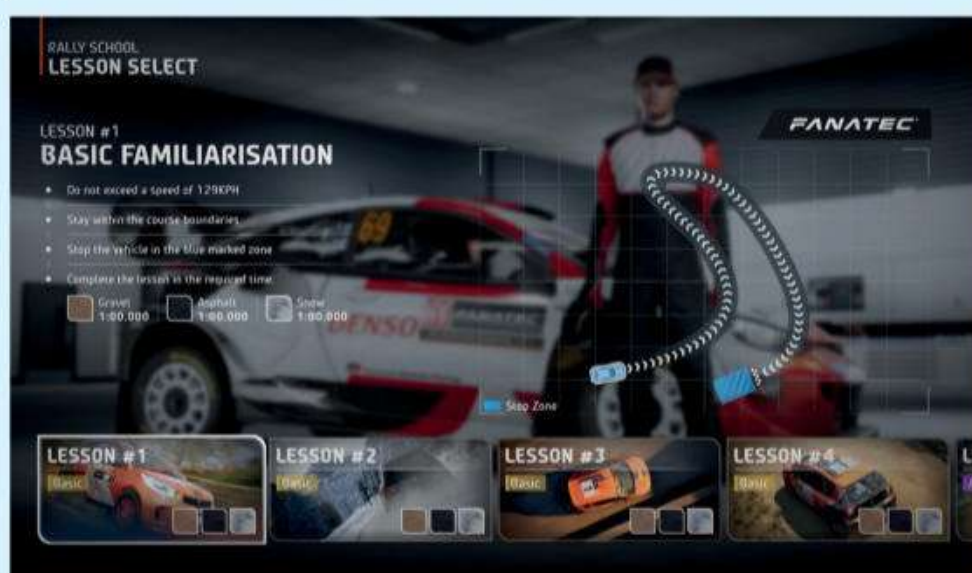
Price €8000

mongrip.com

It's the season for rarefied limited-edition gifts and Monegasque memorabilia company Mongrip has the perfect high-end jewellery for the ardent Michael Schumacher fan. The company has patented a process by which it transforms racing tyres into wristwear, embellished with precious metals. Now, in partnership with the Keep Fighting Foundation, it has produced a strictly limited-edition bracelet in which the main material is recycled from a left-rear tyre used by Michael Schumacher en route to victory in the 1996 Italian GP. This

was the race in which several drivers, including leader Damon Hill, struck the tyre barriers which had been placed to discourage entrants from taking liberties with track limits at the chicanes (nowadays, of course, this is measured electronically and results in a penalty rather than a DNF).

Each of the 91 bracelets features a platinum clasp inset with seven diamonds to represent Michael's seven world titles. The first was auctioned in late November by Bonhams while the next batch went on sale in early December.



EA SPORTS WRC

Price £44.99

ea.com

Officially licenced, and marketed under the peculiar, meaningless and grammatically dysfunctional tagline 'Like Racing But Rally', the new World Rally Championship game for Xbox, PC and PlayStation can trace its ancestry back through the well-liked Dirt series to the seminal Colin McRae Rally games of the 1990s. It's undergone an engine swap for its latest incarnation as the Codemasters studio has abandoned its bespoke in-house 3D rendering system in favour of the venerable Unreal Engine, since this is better able

to support the creation of the longest stages ever to feature in the game.

There are 200 stages, covering 17 locations and 600 kilometres of unique roads, embracing a mixture of surfaces. The car roster includes over 70 models from the championship's history, dating back to the 1960s, and there's also a facility to custom-build your own car, along with a livery editor. As well as individual races there's a career mode, though this is rather basic compared with the My Team feature in the most recent editions of EA's official F1 games.



PLAYSEAT CHALLENGE X LOGITECH G EDITION

Price £259
logitechg.com

If you covet one of those driving simulator rigs beloved of YouTube and Twitch 'influencers' but don't have the space for one – or perhaps have a partner who chafes at the very idea of such a thing occupying a permanent space in the house – Playseat has an alternative. The Playseat Challenge, now available in a Logitech G edition with matching

branding (one for McLaren fans, since Logitech is a partner of the McLaren Shadow Esports team), is light and foldable, enabling it to be stored between gaming sessions.

The ergonomically designed chair is finished in breathable ActiFit material – so only your palms will get sweaty – and can accommodate any steering wheel and pedal setup.



DAMBUSTER 80TH ANNIVERSARY ROYAL BRITISH LEGION MECA-QUARTZ LIMITED EDITION

Price £255
avi-8.com

Last May was the 80th anniversary of one of the most audacious and inventive military schemes of World War II: Operation Chastise, better known to posterity as the Dambusters raid. A low-level night attack on German dams by 613 Squadron, using 'bouncing bombs' devised by ex-Vickers engineer Barnes Wallis to circumvent torpedo nets protecting the infrastructure, the raid breached two of the three main targets and destroyed two hydro-electric power stations.

Aviation-themed watch brand AVI-8 has been supporting the Royal British Legion since 2021 via donations from sales. This latest timepiece pays tribute to the heroism of 613 Squadron by incorporating design motifs inspired by the cockpit instrumentation and colours of the Avro Lancaster bomber, and including the traditional poppy symbol. It features a marine-grade 43mm diameter stainless steel case housing a hybrid meca-quartz movement with a 24-hour subdial indicator.





FINISHING STRAIGHT

THE FINAL LAP

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MATT KEW

PICTURES **motorsport**
IMAGES

A CHARM OFFENSIVE, BUT LIGHT ON THE CHARM

Liberty Media and the Formula One Group are publicly listed companies, which means a green or red number next to their stock price indicates just how well life is going. Naturally, this leads to plenty of PR spin to soften any bad news so the value is protected. This is nothing new and hardly exclusive to F1. But recently, the charm offensive bordered on the offensive.

When the championship was ascending the popularity mountain as *Drive To Survive* viewers tuned in to the 2021 dogfight between Lewis Hamilton and Max Verstappen, F1 was content to disclose the size of its TV audiences. On the eve of each season, growth and percentage gains were shouted about. Granted, contentious and compelling campaigns don't come around often



Pressure to be positive?
Verstappen was critical of the whole Las Vegas event until he changed his tune post-race

so a dip – the intrigue surrounding the landmark pivot to ground-effects for 2022 considered – is understandable. But now F1 keeps schtum.

Instead, it trumpets social media engagement to show F1 is still on the up. Although, recent analysis by social intelligence company Buzz Radar pointed to “significant drops in the overall mentions of F1, and dismal numbers in the growth of new followers”. Some thanks must go to Red Bull's domination for that. F1 fired back, arguing the Buzz statistics were out by as much as 800%.

Around the same time, a rapid-fire run of sprint races arrived in Qatar, the USA and Brazil. They were unspectacular, so drivers and fans complained. But F1 hit back with 27 data points to prove how successful the Saturday format change is.

Apart from these percentages seeming selective, they drew questionable comparisons.

A sprint qualifying shootout will always attract more viewers than practice, plus there were holes in F1 noting the 2023 Azerbaijan GP generated 60% more impressions than the previous race in Australia. Much more of the world was awake for the Baku event. The audience jump could not be attributed solely to one round featuring a sprint.

Then came Las Vegas, the £355million posterchild for F1's recent success. It got off to a tricky start when a water valve cover lifted, causing FP1 to be abandoned nine minutes in. Then FP2 was delayed by 2.5 hours before fans were turfed out. Loose furniture has been a problem in Azerbaijan and Monaco in recent years. But it was the

manner of the defence that put noses out of joint. No apology (most likely to avoid admitting liability for legal reasons), only a \$200 voucher to spend on merchandise, and a sense organisers were patting themselves on the back when FP2 ran “successfully”.

Toto Wolff, a one-third owner of the Mercedes team, lost his rag when a journalist called out proceedings. He said: “It's completely ridiculous! How can you even dare trying to talk bad about an event that sets the new standards to everything?” Many suggested his impassioned response was partly motivated by an interest to see Vegas succeed as the value of his asset might also be impacted.

The Sin City weekend then wrapped with the podium finishers being asked just how brilliant the shiny new event had been. These were cringey exchanges. The victorious Verstappen, a vocal critic throughout, was suddenly much more positive. Undoubtedly, the race itself was brilliantly entertaining. But the champion had been privately encouraged to change his tune.

It's this heavy-handed approach that inspires the chagrin. Yes, it's the expectation for series chiefs to paint an especially positive picture. But not to the point where it feels as though people are being hit over the head with just how amazing everything always is for the sake of that share price.

APART FROM THESE PERCENTAGES SEEMING SELECTIVE, THEY DREW QUESTIONABLE COMPARISONS

PICTURE: JAKE GRANT; ILLUSTRATION: BENJAMIN WACHENIE



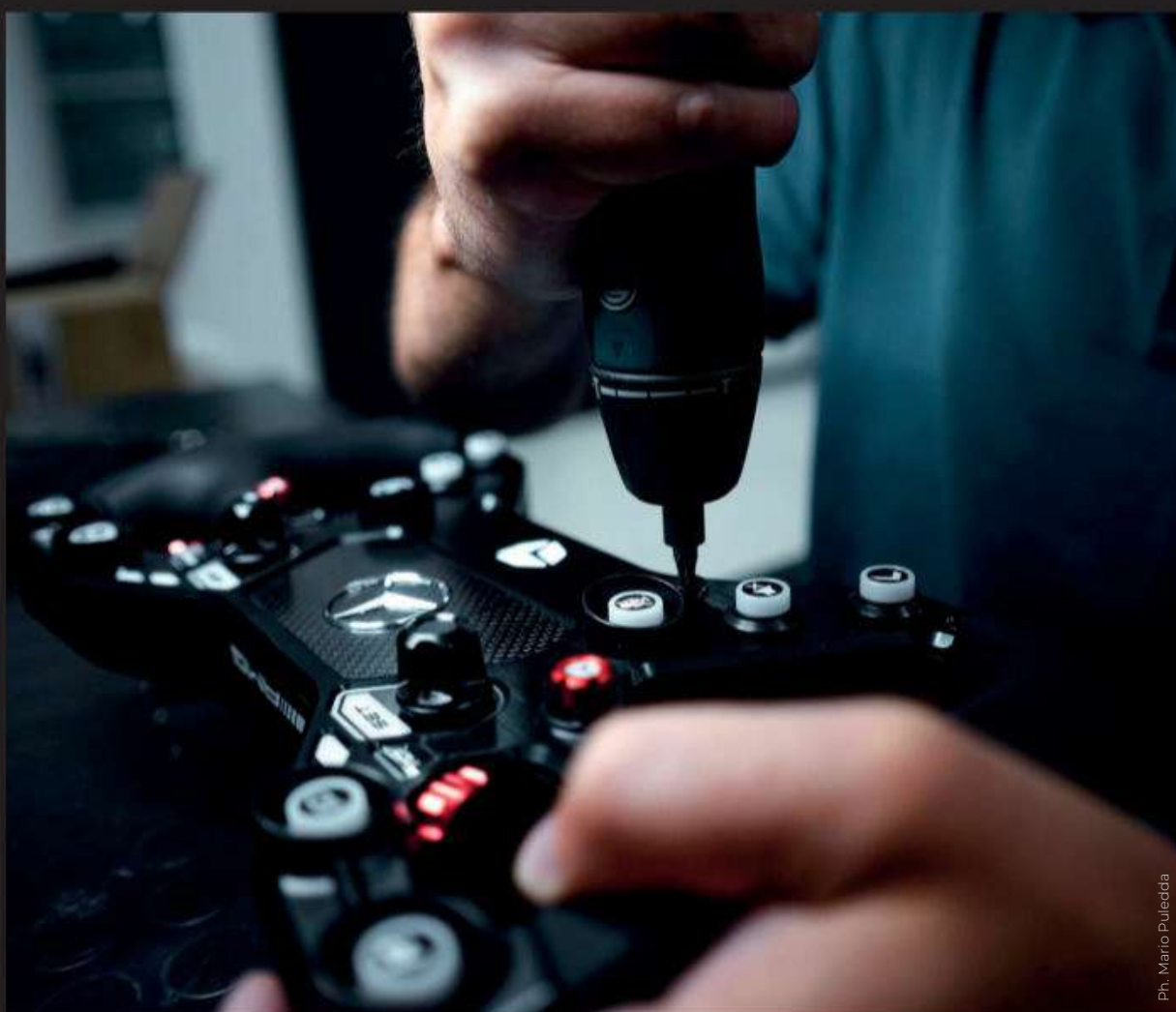
MAKE IT REAL



Ph. Mario Puledda

With the new Cube Controls x Mercedes-AMG - GT Edition Sim wheel, sim racers can experience the thrills and challenges of real motorsport.

To commemorate AMG's 55th anniversary, Cube Controls designed and produced steering wheels that were made for the Mercedes-AMG Track Series and GT2.



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